Observations
ON THE
WORK AND CHARACTER OF THE LATE DR. E. A. PARKES, F.R.S.

BEING THE SUPPLEMENT TO DR. PARKES'S HARVEIAN ORATION,

Delivered before the Royal College of Physicians, Monday, June 26th, 1876,

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WHEN Dr. Parkes penned the sentence, "It may be hoped that, in years to come, there may be many names and many memories which will be recalled in this hall, and on this anniversary," ill though he was, no one thought that his memory would be the first to be recalled in this hall and on this anniversary; for I am sure that you, Mr. President, will not think the day when the College has done him the unprecedented honour of having his unfinished oration read before the Fellows inappropriate for me, one of the oldest of his friends, very briefly to recall the leading facts in his professional career, and to express, in a very few words, the estimate I have formed of the characteristics of his mind and the worth of the work he performed.

After a very distinguished career as a student, Dr. Parkes was appointed, in 1842, assistant-surgeon to the 84th Regiment, and went to India when just twenty-two years of age. He remained in the army less than three years, the greater part of which time he spent in India. Shortly after his return to England he published his work on Dysentery, and the following year that on Cholera. These works prove, more than all the many honours he obtained at his college and university, the amount of work he must have performed as a student—the real knowledge he possessed, knowledge only to be acquired by hard, continuous, unremitting work, and the varied character of that knowledge, chemical, microscopical, anatomical, and clinical. These works, had they been written by one who had filled the post of physician to a hospital for years, would be held to give evidence of high merit in their author; but when it is remembered that they are the productions of a man who had only then closed, and that at an early age, his college days, their merit must excite our surprise. And when, further, we call to mind that the clinical records and post-mortem facts were collected by a man who had just entered the army, everything around him novel and enticing, at such an age, to legitimate idleness and pleasure; that they were collected by a man to whom the complete discharge of his numerous official routine duties was a matter of conscience; that the records of clinical facts and of post-mortem appearances were made in India at the most trying season of the year, when the labour of merely attending to the sick during a great epidemic must have been most laborious, our surprise at the merits of the works and our admiration for the man must, I think, be unbounded. Apart from the evidence these two works afford of Parkes's energy, power of work, and the wide extent of his knowledge, they prove that he possessed even then originality of mind, rare powers of accurate observation, and the ability to combine the facts observed and to draw sound conclusions from those facts. Having regard to the age of their author, the circumstances under which the materials for them were collected, and their intrinsic merit, these two works are among the most remarkable in medical literature.

The promise given by Dr. Parkes's works on Dysentery and Cholera was amply fulfilled. He never ceased working till he passed away, and his work was always productive of results valuable to science or immediately conducive to the benefit of mankind. In 1849 he was appointed special Professor of Clinical Medicine at University College. His published lectures tell something of the worth of his clinical work, but those who followed his teaching can alone tell how great was the influence he exercised over his class in inciting them to work, to accurate observation, and, above all, to the discharge of their daily duties as students of a profession on the proper exercise of which so much of the weal or woe of mankind must for ever depend. The variety and extent of his knowledge, his capacity of influencing others and spurring them on by his example to unwonted exertion, the amiability of his nature, conjoined as it was with great firmness in condemning or resisting what seemed to him to be wrong, pointed him out as the best man in our profession to organise and superintend the civil hospital established at Renkioi during the war with Russia. There his important duties were discharged in such manner as to afford complete satisfaction to his professional colleagues and to the Government, and to secure for him the perfect confidence of Mr. Sydney Herbert and of Sir James Clark, to whose appreciation of his abilities he owed his appointment.

When, in consequence of the report of the Royal Commission appointed to inquire into all matters affecting the sanitary condition of the army, it was determined to establish the Army Medical School, Dr. Parkes was consulted by Mr. Sydney Herbert, then Secretary of State for War, on many points in reference to the constitution of the school. Subsequently, when this school was established, Mr. Sydney Herbert offered Dr. Parkes the most important post in the new school—viz., that of Professor of Hygiene. He accepted the appointment, for it afforded him the opportunity of devoting himself to a subject in which he had always taken the deepest interest—viz., the subject of hygiene, in its relation especially to the health of troops. For this most important post he was unquestionably better qualified than any man in Europe. He had gained much practical knowledge in India, and his articles on the subject in the *British and Foreign Review* prove that he had critically examined and *mastered*, I may fairly say *all*, that had been written on the subject. This appointment enabled him to carry out his wish to reside in the country. The delicacy of Mrs. Parkes's health, and his own and her tastes, had for some time led him seriously to contemplate leaving London, and these motives were strengthened by the fact that he had two serious illnesses during the ten years he was special professor of clinical medicine at University College, and that he knew that he inherited a strongly-marked tubercular constitution.

Although a sound and able practitioner, and possessed of considerable powers of diagnosis, Dr. Parkes never did much private practice in London. His health, his absence from England, the fact that he had no specialty, and his age—for we all know that success in practice is, to some extent, a question of survivorship—all these forbade his attaining a large practice before the time he left London. But his practical knowledge of medicine, his tact, his honourable, straightforward conduct, and his kindly feeling to his younger brethren, would certainly have secured to him, had he remained in London a few years longer, and had his health permitted, a very large consulting practice. He was a man the profession would have appreciated and trusted.

After his appointment to the Medical School at Chatham, his energies were devoted almost altogether to the advancement and spread of hygienic knowledge, and his writings on Hygiene followed each other in quick succession. In 1861 he commenced a series of Annual Reports on the Progress of Hygiene. The last of these reports appeared last year. They are, as Dr. Aitken has described them, models of *précis* writing, and invaluable as records of the progress of hygiene. His Manual of Practical Hygiene, published in 1864, is a monument of industry, a model for clearness of arrangement and style, and withal a work of great practical importance. His Knapsack Report, his Reports on the issue of a Spirit-ration during the Ashantee campaign of 1874, on the Effects of Alcohol on the Human Body, his lectures before this College, and his papers on Nitrogenous Elimination, are all of the highest scientific and practical importance as contributions to the study of Hygiene, and, like all he wrote, their worth is perfected by the knowledge that everything he states to be a fact from his own observation may be implicitly received as a fact, and used as fact by those who undertake similar or allied investigations.

It is characteristic of the man that while a student at college his labours were spread over all his studies; he neglected no one, but left, as we have seen, well-informed in all subjects. When in India he devoted his energies to

the study of the diseases there only to be studied—there only to be seen on a large scale. When Professor of Clinical Medicine it was to practical medicine that he gave his whole mind. He worked at that and taught that, and his pupils alone know how well he taught it. His clinical lectures, embracing a great variety of subjects, give perfect evidence of diagnostic skill and practical acumen. It was while working at and teaching practical medicine that he collected the store of materials for his standard work on the Composition of the Urine in Health and Disease and under the action of Remedies. After his appointment to the chair of Hygiene, it was to the study and teaching of hygiene in all its branches that he devoted his powers. It was this concentration of energy that enabled him to do so much, and to do it all well.

It would not be right for me to conclude this part of my sketch without calling attention to one of his latest efforts to advance practical hygiene, I mean his writings in defence of the Contagious Diseases Acts. His perfect command of the facts and his dialectic skill enabled him to convince all open to conviction of the value of these Acts; and he would be a reckless—I was going to say a wicked—man, who, having read Parkes's papers, should propose their repeal. He was the purest-minded man I ever knew, and he defended the Contagious Diseases Acts. He was the kindest-hearted, the gentlest, the most humane man I ever knew, and you have heard the words he addressed to his College on vivisection. Dr. Parkes, by his writings on hygiene, did much to spread the knowledge of the subject, but as a teacher he did yet more. His colleague, Dr. Longmore, writes to me:—"The influence Dr. Parkes exerted on those who had the advantage of his tuition before entering the military service of the country, and thence indirectly on the public services themselves, was beneficial to an amount which can hardly be over-estimated. It was not merely the knowledge which he was able to impart in the course of each sessional period of the Army Medical School, though, owing to his painstaking personal teaching and lucid expositions, the extent of this was very large, both in regard to the principles and practice of military hygiene as well as to the chemical manipulations applied to it. But what was even more valuable was the interest in the work which he contrived to awaken in many of those who came under his tuition. He was such an ardent, honest, and indefatigable searcher after scientific truth himself, and for truth's sake and the general good only, that his example as much as his teaching served to excite a kindred love of the same pursuit in others. That the zeal so excited was not evanescent has been proved by what many of his pupils have since accomplished in science."

Of the wisdom of Sydney Herbert's choice of Dr. Parkes to advise him originally in the organisation of the Army Medical School, and subsequently to fill the Professorship of Hygiene in that school, no one can now doubt. The Professor of Surgery, who was his colleague from the commencement of the school, writes again to me:—"Since the formation of the school, as must happen in all important establishments, various important questions have arisen from time to time in connexion with the interior economy and working. Dr. Parkes's previous associations with the army, his wide acquaintance with educational subjects, his numerous official relations with London professional institutions, his prudence and tact, his single-minded devotion to the interest of the public service, and at the same time his thoughtfulness for others, all these circumstances caused the active part which Parkes constantly took in the discussions on these questions to be of inestimable value in attaining a right and satisfactory solution of them."

How highly Dr. Parkes's labours in the field of military hygiene are appreciated by those best capable of judging their value, may be well illustrated by the eloquent paragraph with which Baron Mundy, the Professor of Military Hygiene at the University of Vienna, concludes his biographical notice of Dr. Parkes:—"All the armies of the Continent should, at parade, lower their standards craped, if only for a moment, because the founder and best teacher of military hygiene of our day, the friend and benefactor of every soldier, Edmund Parkes, is no more." And Dr. Longmore, commenting on Baron Mundy's eulogy, writes to me, "Dr. Parkes was indeed a benefactor to the soldiers of all armies, if the diffusion of a knowledge of the best means of warding off sickness from bodies of troops, of augmenting the standard of health, and of increasing the individual welfare and happiness of soldiers, constitutes a benefit; and even now that he has gone to his rest, he will continue to be a benefactor to them, for he has trained a small army of followers to reflect and diffuse still further the light which he imparted during his lifetime."

Of the extent of Parkes's labours, and of the value of the scientific and practical outcome of his labours, all here can judge; but those only who personally knew him, and whose personal knowledge of him extended over a series of years, can fully appreciate the mental and moral worth of the man, and the loss mankind has sustained by his death at an age when his intellectual power was in its full strength—when his love and capacity for work were undiminished, and when his influence was daily widening.

My acquaintance with Dr. Parkes began when he and I were attending the same classes at University College, and continued till his death. As a student he was distinguished by brightness and cheerfulness, amiability, unselfish willingness to help others, at any cost of trouble to himself, energy in work, diligence in the using of each hour for the studies of that hour, the high moral tone that pervaded his converse, and above all, and crowning all, by the real living purity of his being. Goodness and purity shone through all his daily life; they were visible in his lesser as well as his greater acts; his purity was not mere lip purity, but pervaded his work and his very being at all times and in all places.

The excellence of his life was so evident, his work was such earnest work performed so unostentatiously and manifestly from such high motives, and the charm of his manner was so great, that few of his fellow students could escape being better men from associating with him. He illustrated well the contagious power of goodness; he diffused among his fellows purity of motive, as some men have diffused among their contemporaries impurity of morals.

From what I can now call to mind of his appearance, and from what he was physically in his latter days, I know that Parkes possessed in his youth much refined beauty of face and form; but his moral nature so clothed his physical that few who knew him intimately would have been struck by his physical appearance. Still body, mind, and moral nature were, as they so often are, in perfect harmony.

Few men have preserved through life the mental and moral characteristics of their youth so unchanged. What he was in the spring time that he was in the summer of his life, and that he was when cut down by death in the early autumn of his days.

With increase in years his mind ripened, his sphere of action widened, his influence over others operated in new and perhaps more important ways; but in all moral and intellectual essentials Dr. Parkes was as a man what he was as a youth—he was animated by the same principles and stimulated by the same faith. As years went on his mind proved itself to be singularly well balanced; he possessed an extraordinary power of acquiring information; his memory was very retentive; he was the best informed man in the medical literature of the century I ever met; he was unprejudiced as he was learned; he could use with ease the information he acquired, and could express his ideas clearly and simply; his language was always elegant, and on occasions eloquent; few physicians have equalled him as a writer. His powers of observation, of perception, of reasoning, and of judgment were all good, and equally good. But as in his youth so in his manhood, the beauty of his moral nature, his unselfish loving-kindness, his power of inoculating others with his own love of truth, with his own sense of the necessity of searching for the truth, of questioning nature till she yield up the truth, of earnest work, were his most striking characteristics.

From the constitution of his mind Dr. Parkes was greatly indisposed to take an unfavourable view of men's motives or conduct, and especially so of the motives or conduct of his professional brethren. He judged others by himself, and, therefore, never doubted the purity of their motives. He thought all men good till they proved themselves to be otherwise. He was, however, the reverse of a weakly, good-natured man, for if once satisfied that a man was animated by unworthy motives, was guilty of dishonourable conduct towards his brethren, he was most severe in his condemnation. Still he would even then rarely say aught against the man, but would, as he once wrote to me, "learn to shun him."

The last days of Edmund Parkes proved the truthfulness of his life. In the very sight of death he displayed the same forgetfulness of self, the same thoughtfulness for others, the same desire to urge forward true work, that had characterised him from boyhood onward. When he believed himself to be dying and heard that I was coming to see him, he was most anxious that I should arrive before his end. The motive that prompted this anxiety was that he might with his last breath promote good and useful work—it was that he might express to me his earnest wish that I should exert the influence which he hoped my position might give me to stay the hands of those who, through ignorance of the value of the Army Medical School, might possibly hereafter curtail its usefulness, or even destroy it. He most earnestly impressed upon me his sense of the worth of all his colleagues, of the value of the work they were doing, and the fitness of each for his special duties. A body of men so able and so well fitted for their duties, if once dispersed, could, he said, never be again collected. In the very act of dying, then, this noble man thought most of others, and how he might best promote the progress of good and useful work when his own hand must be powerless and his own tongue silent.

While Parkes was near to us we saw how perfect was each portion of his life; but it is only when death has placed him at a distance that we can realise how completely he stands out from his fellows. It is only now when death has placed him at a distance that we can see his character as a whole, that we can fully appreciate the harmonious beauty of the several parts of his being, and the full height of his intellectual and moral stature.

And now, Sir, that I have finished the task the judgment of others and my own sense of duty imposed on me, I must say that, although I have striven my best to draw Edmund Parkes truthfully, I feel, to use his own eloquent words, written for a like occasion, "how pale and tame a portrait I have drawn of this noble and large-hearted man. Would that to some pen, which could draw the outline more boldly, and could fill in the lights and shadows more delicately, this task had been assigned."

Clinical Lectures
ON
OSTEO-MYELITIS AND ACUTE PERIOSTITIS.

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LECTURE II.

BEFORE discussing the pathology of osteo-myelitis, I wish to draw your attention to some specimens of healthy bone. The extremities of the long bones are surrounded by a thin layer of compact osseous tissue, but the bulk of the spongy portion of these bones is constructed of a number of osseous trabeculæ, and the spaces between these processes are, in the living bone, filled up with soft structures (medulla), which play the most important part in the various forms of disease we shall have to consider. With the aid of preparations made by soaking sections of injected bones in solutions of chloride of gold and glycerine, I shall be able to explain to you the anatomy of the soft material filling the spaces in the spongy portions of the long bones. And let me here remark that these soft tissues are continuous with those occupying the medullary canal, and they also abut on the attached surface of the articular cartilages, actually filling more space in the spongy portion of bones than the osseous trabeculæ. The greater number of the vessels which pass into the extremities of the long bones are derived from vessels perforating the periosteum and outer thin layer of bone, and not from the nutrient artery. For instance, the vessels of the lower end of this femur have been injected from the popliteal artery, and this anatomical arrangement of the vessels will in some measure explain the fact, that in certain cases well-applied and continuous pressure round the lower end of the femur may influence inflammatory changes going on in the bone, the blood-supply to its spongy tissue being thus materially affected—in fact, a layer of extract of belladonna and mercurial ointment smeared thickly over the skin covering the condyles of the femur and knee-joint, the whole being encased in well-applied strapping, would place the inflamed intra-osseous structures in much the same condition with reference to their supply of blood, as the iris would be in after the pupil had been fully dilated with atropine for the cure of iritis; the supply of blood to the bone would be restricted, and the part kept at rest—two important elements in the successful treatment of inflammation.

If we examine the soft structure in the cancellated tissue, we shall discover that it is fairly supplied with blood, many of the smaller vessels coursing along the walls of the trabeculæ, while others stretch across the intra-trabecular spaces. In addition to these vessels, the spaces contain a network of fine adenoid or connective tissue, its meshes being filled in with fatty material and a vast number of granular cells, which, as a rule, seem to adhere to or grow from the connective-tissue fibres. This latter structure is not only spread throughout the spaces in the spongy portions of the long bones, but it also lines the osseous trabeculæ, and is continuous with processes of connective tissue passing through the outer lamina of bone from the periosteum. Many authorities hold that this plexus of adenoid tissue is to be considered as the commencement of the lymphatic tissue in bones. It seems to me that in the medullary canal the evidence in favour of this view is very strong, and I think we may yet demonstrate the existence of lymphatic structures in this situation. But however this may be, we certainly find that the Haversian canals contain a network of adenoid tissue in addition to their vessels, and that this connective tissue, together with its cells, plays an important part in inflammatory and other abnormal processes going on in the interior of the long bones. It is almost unnecessary for me to remark that a considerable number of our patients suffering from disease of the bone are young persons, and in these cases we shall find, in addition to the elements I have already described as occurring in the cancellated tissues, a number of giant cells (myeloid), such as we always meet with in the medullary spaces before the adult period of life.

If we examine these sections of the articular surface of the tibia which have been rendered transparent by glycerine, we shall be able to comprehend the anatomy of the cancellated structures immediately beneath the articular cartilages. The soft material filling these spaces projects down to within a very short distance of the attached surface of the cartilage, the medulla terminating in bulb-like masses, from which processes run along passages in the bone up to the cartilage. So numerous are these channels passing from the medullary spaces to the cartilage that the layer of compact bone they perforate may be said to be riddled with tortuous channels, and this layer would therefore be a weak point in the bone were it not for a peculiar arrangement of its calcareous elements. With a half-inch magnifying power we can see small lumps and a quantity of granular earthy matter dispersed in an abundant but irregular manner in the osseous lamina between the cartilage and the cancellated structure, and the canals I have described pass up towards the cartilage through this calcareous layer, which, from its peculiar construction, is apt to resist inflammatory or other abnormal action going on in the part; at the same time changes occurring in the medullary substance can pass along the contents of the canals to the attached surface of the cartilage.

We may now proceed to examine the alterations which have taken place in a portion of bone affected by inflammation, and we can hardly have a better illustration of what occurs under these circumstances, than that afforded us by sections made through the inflamed spot in the lower surface of the astragalus, which I showed you in the last lecture in the case of W. S——, reported very accurately for me by my dresser, Mr. Trewman.* As a consequence of the increased action going on in this inflamed patch of bone, which is in immediate proximity to the cartilage, we find

* THE LANCET, vol. i, 1876, p. 805.

that rapid proliferation has taken place in the nuclei of the neighbouring cartilage cells, each nucleus dividing into four, six, or eight parts; but, in addition to this, you may notice that a great number of the original cartilage cells appear to be, as it were, in a pit, as seen by transmitted light. This appearance is due to an increase in the contents of the cavity, within which the cartilage-cells lie; and, on examining this specimen with a high magnifying power, we shall discover that the abnormal contents of these cartilage cavities are due to a granular material (protoplasm) which we can clearly trace from one or more of the canals leading from the medullary spaces down to the cartilage. This medullary matter, having rapidly grown in consequence of the hyperaction going on in the bone, has infiltrated the cartilage, and, passing into the cavities of its cells, has there continued to grow; so that many of these cartilage cavities have become large irregular spaces, and, these uniting with one another, a hole has been formed in the cartilage, which, had it increased in size, would have opened on the free surface of the cartilage, and thus formed what we commonly designate an ulcer. In this specimen, therefore, we have clear evidence as to the fact that osteitis (or, as I prefer to call it, osteo-myelitis) may lead to the ulceration of the articular cartilages, and that, the cartilage having been perforated in this way, a sinus passes through it leading into the medullary spaces in the spongy portion of the affected bone, from which the protoplasm which has caused all the mischief has in the first instance advanced.

With reference to the bone, the most obvious pathological alteration we notice in the specimen now under our observation, as the result of the inflammatory process, is that its vessels are engorged with blood, and that the parts surrounding them are stained by the colouring matter of the red corpuscles; it is not simply serum and white globules that have passed from the vessels into the neighbouring tissues, but that there has been a disintegration of red corpuscles, and their contents have percolated the inflamed area. Beyond this we observe that the fatty matter contained in the medullary spaces is diminished in quantity, and that the giant cells are greatly increased in number, almost entirely occupying the whole of many of the medullary spaces; and doubtless, unless the inflammatory process were excessive in its action, it is from these cells that new bone would have been produced, the layer of newly-formed osseous tissue acting as a protective influence against the absorption of the products of inflammation into the system, in the same way as the walls of an abscess preserve the circulating fluid from the passage of pus into the blood. We shall subsequently see how beautifully this action on the part of the cells has worked in the case of chronic osteo-myelitis I referred to in my last lecture, but in the instance now under consideration, the disease being acute, the myeloid cells have exceedingly multiplied in consequence of the over-action going on in the part. But they have not had fair play; surrounding circumstances have choked their growth, and here we see them crowding and pressing on one another, striving, as it were, to escape from their confinement in the medullary spaces. With a light brush we may sweep away these giant cells, and then we shall notice more clearly that the cells of adenoid tissue in the cancellated structure are infinitely more numerous than in health. The giant cells, in fact, lie imbedded in a fibrous material which is crowded with granular cells; these may be derived from the blood, but I am disposed to believe they are the offspring of the original cells I described to you as existing in the connective-tissue fibres in this locality, and we have evidence in cases of necrosis that these cells may either degenerate into pus, or they may become developed into granulation-tissue. In addition to these cells the medullary spaces contain a large quantity of granular protoplasm, some of which, as we have already observed, has passed into the neighbouring cartilage, and much of it has evidently been absorbed through the canaliculi, and so entered the lacunæ of the surrounding osseous trabeculæ I am aware that it is a disputed point as to the part which the bone-cells of the lacunæ take in the process of osteitis, and it is not my province to pass an opinion on the conflicting views held on this subject, but simply to help you to interpret the pathological changes that have occurred in the specimens now under our consideration. From these you will see that many of the canaliculi leading from the inflamed medullary spaces to the lacunæ are evidently enlarged, and most of the lacunæ are even four times their natural size, being filled up with granular matter; in fact, they are in much the same condition as the cartilage-cells, having been invaded by a quantity of rapidly-growing protoplasm from the medulla. The normal function of the living matter (nucleus) contained in the bone-corpuscle is impaired, and you must bear in mind the fact that the osseous structure immediately round one of these corpuscles is, as Dr. Beale says, formed material, being in health repaired and kept in its normal state through the action of the living protoplasm in the bone-cell. Destroy this nucleus, and, the nutrition of the surrounding area of hard bone, depending on it, being no longer accomplished, a cavity is formed round the bone-corpuscle, which in the case we are now considering is occupied by the growing protoplasm from the medullary spaces. Under the influence of the inflammatory process one lacuna after another becomes destroyed, the spaces they occupied run into one another, and a cavity occurs in the trabeculæ, which ultimately opens directly into the nearest medullary space. The form this cavity takes is that of the original growth of the lacuna system, being thus more or less circular in figure. It is evident, therefore, that the osseous framework of bone plays but a very small part in cases of osteo-myelitis, and, in fact, we may have almost the whole of the soft structures contained in one of the long bones absolutely destroyed and the patient killed from the effects of septic poisoning; and yet we might examine sections of the dry bone under the microscope, and be unable to discover that the Haversian system had been in any way implicated, illustrating the point I have so often dwelt upon, that the study of pathology is apt to mislead us unless we examine specimens of the structure implicated immediately after death, and alter their condition as little as possible by chemical reagents. It may be that the original cartilage and bone-cells take a more active or even a suicidal part in the disintegration of structures depending upon them, but we fail to see any indication of this process in the specimens now before us. You are aware that many authorities believe the disintegration of the bone in cases of this kind is due to the formation or secretion of an acid fluid in the inflamed structures, which is supposed to dissolve out the earthy particles from the bone, destroying it by means of chemical action. I can only say that my observations have failed to convince me that any such acid is formed. If such were the case, surely the matter would have been set at rest by chemists long ago. Nor do we require the help of a theory of this kind to explain the phenomena I have described, for if the nucleus or living portion of the cell is destroyed, evidently, the parts around which depend upon it being no longer repaired, a cavity must result in the osseous structure, such as I have above noticed. In ordinary language, if the source from which a stream has been fed becomes dried up, we hardly talk about the river having become absorbed; and so in the matter of the cartilage and bone-cells, if the living material from which the parts are produced ceases to be, evidently an empty space occurs around the site of the original protoplasm, which cavity, as in the instance now under consideration, may speedily be filled up by extraneous matter.

As the inflammatory process advances in the medullary cavities of bone, pus and the disintegrated surrounding materials become mixed together in a decomposing mass. Septic matter of this kind, although no external air is admitted into it, is a deadly poison if introduced into the circulation; for, as I told you the other day, I have seen death resulting from a large plug formed in the right side of the heart, and extending into the pulmonary artery; from the absorption of matter of this description from an injured spot in the diploe of the skull. This tendency to septic poisoning is enhanced when air gains access to the products of the inflamed bone, as is usually the case in osteo-myelitis, and in acute cases there is no chance of a limiting membrane being formed round the inflamed part, and hence the blood-poisoning that so frequently occurs in this form of disease. It is not very uncommon subsequent to amputation for our patient to die suddenly some eight or ten days after the operation, and if we seek for the cause of death, we may find in the right side of the heart a firm clot of fibrine which has killed the patient; and if we examine fresh sections of the bone cut through during the operation, we may often discover in such cases that the contents of the medullary canal is already largely made up of putrid

material, which, having been absorbed into the blood, has destroyed the patient as above described.

In acute periostitis the condition of the inflamed parts is very different from that found in osteo-myelitis, as the section of the fibula referred to in my last lecture demonstrates. In this instance, although suppuration has occurred between the bone and the periosteum, and the shaft of the fibula been thus laid bare, still the soft structures outside the periosteum have also been inflamed; in fact, an abscess has formed round the bone, and the inflamed area is thus limited by consolidated tissues, through which the absorption of the products of the inflamed tissues into the system is greatly hindered. It is true so grave a lesion to the periosteum as that above alluded to must affect the nutrition of the bone, but, unless the contents of the medullary canal participate in the inflammatory action, the patient's life is not likely to be endangered from pyæmia. In the case before us the contents of the medullary canal and Haversian system surrounding it seem to be perfectly healthy, their vascular supply being derived from the nutrient artery of the bone; but in the outer layers of the fibula, which have grown from and been nourished by vessels from the periosteum, we find that a number of cavities have been formed through the breaking down of lacunæ in the manner I have described, and the layers of bone surrounding the shaft of the fibula were becoming necrosed in this way. It is easy, however, to imagine that in acute periostitis the inflammatory action might be propagated along the connective tissue surrounding the nutrient artery or the vessels passing into the cancellated tissue, and set up a similar action in the medullary structure, which in its turn would very probably induce pyæmia; but then the disease is no longer one of periostitis, but of osteo-myelitis.

From a practical point of view we may conclude that in acute periostitis, although the fever runs high and the parts affected are intensely inflamed, still we may fairly hope, by very free incisions down to the bone, to arrest the danger of septic poisoning; and if the disease has occurred to parts below the knee- or elbow-joint we may save the limb. The case is much more serious if the humerus or femur is attacked by acute and rapidly spreading periostitis; for the surrounding tissues become extensively implicated, the vessels may be eaten into, and the loss of blood and profuse drain of matter from the part render amputation at the shoulder- or hip-joint necessary, and I need hardly add that these are operations from which we justly shrink under the circumstances. If, on the other hand, during an attack of this kind, pyæmia supervenes, we may be almost certain that the medullary tissues are implicated; and, in my opinion, wherever the seat of the disease may be, the sooner the part is removed at or above the joint beyond the disease the greater will be the chances of the patient's recovery; every day, I may say, almost every hour, you delay this proceeding renders the prognosis more unfavourable.

NOTES ON UTERINE PATHOLOGY.

BY GRAILY HEWITT, M.D., F.R.C.P.

II.—DESCRIPTION OF THE VARIOUS ABNORMAL CONDITIONS OF THE UTERINE TISSUES. (CONTINUED.)

FOR the sake of distinctness I have in the foregoing remarks on the various abnormal conditions of uterine tissues considered only the nulliparous uterus. It will be necessary now to consider the various physical changes met with in the uterus *when pregnancy has occurred*.

(A) *Softness.* After the pregnant uterus has expelled its contents at full term, it is soft, as well as of considerable size; and when an abortion has occurred the condition is the same, though the size is less. Normally, the process of "involution" reduces both the softness and the size, in accordance with laws now well known. But when the normal involution is disturbed the uterus may be found very soft a considerable time after it has been emptied of its contents. This unduly prolonged softness indicates generally weakness, slow circulation, feebleness of constitution, and slowness of nutrition. The patient slowly recovers her strength, but if well fed, and not allowed to move too soon, the uterus undergoes a change from softness to firmness, and becomes reduced in size. But the uterus may be found still very unduly soft a month, six weeks, two months, or even longer after labour.

This defective involution, associated, as it generally is, with the softness of the tissues, renders the organ very liable to undergo change in shape.

Imperfect contraction during the period immediately following the third stage of labour is accompanied with considerable softness of the organ. This is, it may be said, only a part of defective involution, but it deserves separate mention. And, as is well known, the uterus frequently contracts perfectly at first, but the contraction fails a little later, and it becomes again very soft.

Pregnancy, then, plays a very important part in conferring upon the uterus a physical quality which, if persistent (defective involution), predisposes it to various disturbances. The condition of the soft, imperfectly-contracted uterus after delivery is in some respects like that of the uterus, soft and weak from imperfect nourishment, as sometimes observed in young women who have never been pregnant. The difference is one of degree, the uterus being, of course, much smaller in the latter than in the former case. And inasmuch as the soft, recently-impregnated uterus is large, bulky, and heavier than usual, it is more easily affected by the action of forces calculated to alter its shape and derange its position. In other words, the uterus which has recently undergone pregnancy is more liable than the nulliparous uterus to become affected with those disorders to which undue softness constitutes a predisposition.

Very many cases of chronic flexion of the uterus are distinctly traceable to slight accidents, or even ordinary exertion, acting on an organ soft and unduly pliable during the first two or three weeks following parturition. And in some cases the history distinctly shows that the malady originated within the two or three days following the labour.

Abortions are doubly interesting considered from this point of view. The abortion is frequently caused by distortion of shape, and sometimes the distortion in shape occurs suddenly, and causes the abortion. But it is certainly the fact that the abortion frequently very much intensifies an existing flexion. After the expulsion of the ovum the organ is soft, large, and pliable, and in its flaccid, empty state the uterus becomes frequently even more bent than it was before. Thus the evil may be perpetuated.

The uterus having thoroughly recovered from the effects of pregnancy, may of course, as is the case with the nulliparous uterus, become subsequently affected with softness from other causes.

(B) *Hardness.* An enlarged indurated uterus is common in chronic uterine disease where the patient has been pregnant. The hardness is accompanied with considerable enlargement in many cases. The whole cervix may be unwieldy, distorted, its lips everted, and a profuse secretion escaping from its interior. The body of the uterus is frequently in a like condition—hard, enlarged, and heavy. The uterus as a whole is hypertrophied in many instances. These are cases for the most part in which the uterus has primarily failed to contract efficiently after labour; has secondarily become affected with change of shape; and, in the third place, has become the seat of those chronic hypertrophic nutrition changes which were formerly spoken of as chronic inflammation, but for which some such designation as "areolar hyperplasia" is more appropriate. The mechanism of the process by which these results are reached is in no wise different in kind from that which is observed in the nulliparous uterus, but it differs in regard to its results; for the bulk of the affected parts is much greater when the disorder follows pregnancy or abortion than under other circumstances. It is not uncommon, for instance, to find the uterus three times its normal size a year or two after the termination of a particular pregnancy, the cervix large, hard, hypertrophied, and altogether abnormal in shape, concurrently with which the organ is the seat of very decided flexion; and an examination proves that the body of the uterus is equally enlarged, hard, and indurated. There are necessarily great variations in different cases, for the hardness is sometimes exchanged temporarily for softness; further congestions occur from time to time, producing

some degree of softening and additional enlargement, and when the congestion a little subsides the part affected is left hard and resistant.

There may be found considerable hardness, with slight enlargement of the uterus, without change of shape to any great amount, for it is by no means a *necessary* effect of defective involution of the uterus that it should undergo a change of shape. Whether that happens or not will depend on circumstances. The defective involution leaves the uterine framework, so to speak, large; it hardens in that enlarged state, this condition persisting perhaps for months, and even for years.

The degree of hardness observed varies. Sometimes the uterus possesses a quite stony hardness, the cervical portion presenting rounded projections of considerable size, very firm to the touch. In process of time these hard portions may become still harder. The hardness is most intense when there is an associated chronic flexion present. These hard nodular enlargements of the cervical portion alter the natural shape of the os uteri to a notable degree. Dr. Henry Bennet some years since differentiated them from a condition with which they were formerly liable to be confounded—viz., the early stage of uterine cancer.

(C) *Increase in bulk.* This, as already remarked, is frequently associated with undue hardness, particularly when the malady has existed for some time. But increase in bulk is often attended also with greater softness than ordinary. The defectively involuted uterus is large and soft at first. It is subsequently large and *hard*. In regard to mere size, all degrees of it may be encountered when flexion is associated with it; the enlargement is most marked at the two extremities of the uterus, and it is unnecessary here to explain the mechanism of its production, this being the same whether the patient has been pregnant or not. The difference is, however, great in degree, for the organ is rarely found anything like so large in the nulliparous subject as when pregnancy has formerly occurred. Cases are exceedingly common in which the patient is found to have an enlarged, distorted uterus, which sometimes presents considerable softness, but at other times is found to be hard and resistant. The organ contains much blood, its vessels are increased in size; it is the seat of repeated congestions, which alternately appear and disappear. The organ grows by the continual additions that are made to its bulk as the result of these repeated congestions, until it attains a very considerable magnitude. The body of the uterus is not unfrequently found so heavy that it is altogether at the mercy of external forces. The uterine stem, narrowed at its middle, offers a quite inadequate resistance to further flexion. The disorder is thus perpetuated, each successive attack of congestion leaving the organ more and more helpless.

Thus it happens that in women who have had children the uterus is frequently so much enlarged that its bulk renders treatment difficult in a greater degree than is the case with nulliparous subjects.

The obstacle which a coexisting flexion offers to the return of the uterus to its normal size after parturition is very great. I have had opportunities on several occasions of appreciating this difficulty in cases where the uterus has suddenly become flexed within a short time after the occurrence of labour. The involution is very greatly retarded by the occurrence of the flexion, and in like manner in the chronic cases of conjoined flexion and enlargement I have found the great obstacle to the reduction of the enlargement is the flexion. When the uterus has become much hardened, as well as flexed and enlarged, the difficulty is proportionately increased. But nevertheless it is a fact, which I have over and over again observed, that the diminution in the bulk of the enlarged uterus which occurs when the organ is straightened is very frequently quite remarkable. The explanation, of course, is that the processes of nutrition, circulation, and absorption go on much more readily when the uterus possesses its natural shape. There is nothing very wonderful in this, but the very simplicity of the explanation seems to be a barrier to its acceptance with many.

The very great importance of enlargement of the *body* of the uterus as a factor in the majority of actual cases comes out more and more as clinical observation is extended, more especially in the case of women who have had pregnancies. Unquestionably this condition was formerly frequently overlooked, but there is no doubt that it will come to be regarded with more and more attention in the future. The appreciation of the existence of this enlargement is sometimes not easy. The increase in the size of the cervical portion of the uterus is recognised readily enough, but unless the enlargement of the body of the uterus be looked for, circumstances are such that it will be frequently undetected. Not rarely the cervical portion is only slightly enlarged, while the body of the uterus is very much increased in size, and unwieldy to a degree.

Here another practical remark may be made. It is my experience that enlargement of the body of the uterus is far more commonly overlooked when the organ is anteflexed than when it is retroflexed. One reason is that the body of the uterus is more readily felt by the touch in cases of retroflexion than in cases of anteflexion. But another is that careful exploration through the roof of the vagina by digital examination is too often omitted. Perhaps the most common case which presents itself in ordinary practice is that of a patient who has had pregnancies and who has since become affected with enlargement of the uterus, anteflexion, anteversion, and descent of the whole organ below its natural position in the pelvis. The facts lie before us, and it does not require a highly skilled observer to appreciate them. It is only necessary to insist on the investigation covering the whole ground; these abnormal conditions will not then so frequently be altogether unnoted and unrecognised.

According to my experience, cases are not very common in which the body of the uterus is much enlarged *unaccompanied* with change of shape (of course fibroid enlargements are here excluded from consideration), and this is an important argument for the truth of what has been above said regarding the connexion between the distortion and the enlargement.

(D) *Diminution in bulk.* On this subject little remains to be added to what has already been stated respecting the nulliparous uterus. The cases of super-involution of the uterus described by Simpson come under this category, but they are very rare. The local atrophy, limited to the seat of the bend in cases of flexion, is, however, very important. See previous remarks on the nulliparous uterus.

CASE OF RETRO-PHARYNGEAL ABSCESS COMPLICATED WITH, AND OBSCURED BY, SUBACUTE LARYNGITIS:

TRACHEOTOMY PERFORMED FOR RELIEF OF LATTER BEFORE FORMER WAS DISCOVERED.

BY H. A. CHATHAM GRAY, M.B. EDIN.,
SURGEON, BENGAL MEDICAL SERVICE.

THE above case came under my observation when I was in medical charge of the 18th Bengal Infantry, now stationed at Baxa, Bhootan. It may be worthy of publication, as it presents the following peculiarities:—

(*a*) Origin of the abscess low down in the pharynx.

(*b*) Complication with laryngitis.

(*c*) The history of the case pointing to laryngitis.

The patient, a sepoy of the regiment above-mentioned, rushed into hospital about 9 P.M. one day in a state of great excitement, coughing violently. I was summoned immediately. As I found him capable of giving answers to my questions, and heard his statement that a fragment of the husk of paddy went down the wrong way, I dismissed the immediate gravity of the case from my mind, and told him that in a few hours the coughing would expel the husk. He, however, thought differently, and, placing his finger on the middle of the right side of the thyroid cartilage, wished me to insert some instrument to extract it. He said that if this were not done, he should die before morning. I dismissed him to his charpoy, and placed an attendant to watch over him.

On visiting the hospital the next morning, I found him quite composed, but he still pointed to the same spot, and expressed his belief that the fragment was still there. He returned to his duty.

About twelve days after he made his appearance in the hospital complaining of difficulty of deglutition and respiration. The signs and symptoms were briefly these. Expression anxious; neck stiff and bent forward; head immovable; voice a hoarse whisper; breathing difficult; deglutition almost entirely impeded. Pain in pomum Adami, especially in middle of right ala; digital examination of the fauces revealed nothing to account for the urgency of the symptoms. As the signs and symptoms pointed to laryngitis, active measures were adopted to reduce the inflammation in the larynx. As this was not acute, and as there was no fever, I thought that the best plan would be to paint the external surface of the larynx with blistering fluid to cause a sudden diversion of the nerve-force from the inflamed structures. Had the inflammation been acute I should not have done this. About ten hours afterwards the patient expressed himself as better. I ordered inhalation of steam, and nutritive enemata. The next morning he felt worse; complained of great hunger and thirst; breathing was more difficult. The paroxysms of coughing were becoming more frequent and violent. Towards the afternoon he said he felt respiration easier, but towards night the case looked very alarming. Digital examination revealed nothing. Tracheotomy was indicated, but I could not trust myself to its performance by candle-light. Two hospital assistants were appointed to watch over him during the night. The next morning tracheotomy was performed above the thyroid isthmus. Respiration was relieved. Trachea tubes were inserted; the patient was placed in a warm corner of the hospital (which was made of bamboo, mud, and grass), and was fed by nutritive enemata. The next morning I expected to find some relief in deglutition; but the patient thought the difficulty increasing. I was alone in this station, and there was no one whom I could call in consultation. I was rather perplexed. Forty-eight hours after the operation I began to suspect some other cause, and again subjected the patient to a digital examination of the fauces. The finger at once detected a smooth, tense, projecting protuberance behind the tongue. The case became at once evident. The abscess was immediately opened, and about five or six ounces of thick and yellowish offensive pus were evacuated. The abscess extended *low down* into the pharynx. Shortly after the operation the patient swallowed half a pint of milk and brandy, for he was exceedingly thirsty and hungry. The trachea tubes had to be kept in a day longer. They were then removed, and the opening began to close up rapidly. The abscess discharged pus for two or three days.

When I was leaving the regiment on furlough to England he was quite well, and making preparations to proceed to his native village on convalescent leave.

Remarks.—The case is peculiar in that the abscess had its origin *so low down in the pharynx* that it was beyond the reach of the finger. The pressure of the abscess against the larynx excited subacute inflammation, and the abscess did not become apparent until it had grown and risen to be within the reach of the finger.

TWO CASES SIMULATING DELIRIUM TREMENS.

By SURGEON-MAJOR G. YEATES HUNTER,
PRESIDENCY SURGEON, BOMBAY.

ABDOOL AHMED and Ally Hoossain, two strongly built Arab sailors, who were undergoing a sentence of five years rigorous imprisonment in the House of Correction, at Bombay, for taking part in the Parsee and Mahommedan riots in February, 1874, were admitted into hospital in June with symptoms closely resembling those of delirium tremens.

It was difficult to obtain a complete history of these men because, being Arabs, neither understood a word of Hindoostani, but information has been gathered to the effect that they had both been very temperate, hard-working men, had suffered from no serious previous sickness, and had always been large eaters.

On admission and throughout their illness the symptoms of excitement were prominent and were succeeded by most remarkable depression. There were delusions, the muscles of their limbs were tremulous, as also was the tongue, and the head of Abdool was constantly shaking from side to side. The appetite of both was voracious; they simply could not be satisfied; squatting down they shoveled the food in as fast as they could, and had while doing so a peculiar wild-beast kind of appearance. For the rest, temperature was 99° F., pulse soft, skin perspiring, tongue creamy, sleeplessness was marked, bowels confined, breathing, sighing, and a nervously alarmed fidgety state was present. I may add that, although much excited, they were readily controlled and showed a disposition to obey orders.

Treatment.—Head shaved and kept cool, bowels thoroughly opened, and secretions corrected. Quinine and acid and bark and ammonia were given, and bromide of potassium, chloral, and hypodermic injections of morphia to compose. The native diet was exchanged for European, and extras were freely allowed, such as beef-tea, milk, sago, arrack, &c.

I extract the following from Ally's case:—"June 16th.—At 8 P.M. yesterday (ten days after admission into hospital), this man all at once jumped out of bed and tried to make his way downstairs, talking loudly, and shouting out that he was a shaitan (devil), and that three other shaitans, natives of his country, were on the top of the house. He looked pale and excited, singing, laughing, and abusing people. Eyes had a maniacal stare, pupils natural, body cool and perspiring, tongue moist, pulse soft and weak (78). He continued in this state until 3 A.M. this morning, when he dropped off to sleep, bromide of potassium having been given to compose him. To-day he looks tired and is weak, and has no recollection of last night's occurrence. There is tremor of the head and limbs."

After three weeks' treatment in Abdool's, and two months' in Ally's, case, they were transferred to the Lunatic Asylum, as I have no adequate establishment for the treatment of mental derangement, and I have since heard that they completely recovered.

These cases are, I think, noteworthy as presenting symptoms of delirium tremens without any history of alcoholic blood-poisoning or of the use of narcotics. The tremor of the various muscles, those of the tongue included, was very marked; delusions were present, and the symptoms generally were characteristic of delirium tremens, with the sole exception of appetite, which, instead of being lost as is usual in delirium tremens, was enormous. I may observe that the peculiar train of symptoms I have described did not set in until after three months' incarceration.

I find in Abdool's diary the following notes: "This is a singular case, giving the appearance of delirium tremens, and I can only account for the tremors by concluding that a semi-starvation diet, compared with his former ration, has caused great nervous exhaustion." Doubtless there is a similarity in the symptoms of these two cases to those of starvation. From their first admission into the county gaol they complained of the diet being insufficient, upon which the Marshal, exercising a wise discretion, took upon himself to order European diet. Upon their transfer to the House of Correction, to which all long-term prisoners are sent, they were rationed in the usual manner, receiving the native diet of rice, dhall, &c.

The scale of diet in use in the two Bombay gaols is ample to meet ordinary requirements, but it appears to me that the cases I have glanced at show that it is impossible to frame dietary tables, as to the quantity, to suit all; at all events, I shall take care that in future Arabs are rationed on the more liberal scale.

I almost omitted stating what I think confirms the hypothesis that insufficient food-supply was answerable for these attacks—viz., that Ally recovered after about six weeks' treatment, and on being discharged with some of the extras cut off, was readmitted in about a fortnight with similar symptoms.

It may be well to state that Arabs lead a roving free-and-easy kind of life, and are peculiarly liable to suffer from imprisonment, which tendency, superadded to privation, may more easily account for a train of symptoms I have ventured to think of sufficient interest to bring to notice.

Bombay.

DESCRIPTION OF A

SPLINT FOR USE AFTER EXCISION OF THE KNEE.

BY VICTOR A. WARTENBERG,

JUNIOR HOUSE-SURGEON, MANCHESTER ROYAL INFIRMARY.

I BEG to submit to the notice of the profession a splint I have had constructed for application to the leg after the operation of excision of the knee-joint. It fulfils the following conditions:—1st. It allows perfect adjustment of the cut ends of the bones. 2nd. It ensures perfect immobility after adjustment. 3rd. It permits free access to the joint for the purpose of dressing the wound.

From the woodcut it will be seen that the splint consists of three parts—viz., a thigh, a leg, and a popliteal portion.

The thigh portion consists of a wooden back splint, which extends from immediately below the buttock to within three inches of the centre of the knee-joint. On its anterior surface is fixed a layer of "Hide's felt," which is so cut as to envelope the thigh. The edges of the felt are supplied in front with hooks, so that it may be laced up.

The leg portion likewise consists of a wooden back splint, which extends from three inches below the centre of the

knee-joint to the foot. About three inches from the heel the foot-piece is attached to the leg-splint by a hinge, after the plan adopted by Mr. Callender. To the anterior surface of the leg-splint is attached Hide's felt in exactly the same manner as to the thigh-splint. At the distal extremity of the thigh portion, and at the proximal extremity of the leg portion, the posterior surfaces of the wooden splints are grasped by strong cross pieces of wood, which project on either side about two inches. At each extremity of these cross pieces is attached a metal upright, eight inches in height, seven inches of which project on the anterior surface of the splint and one inch on the posterior. These uprights are connected by four horizontal bars fixed by a screw and nut at the thigh end, but supplied at the leg end with a running slot and thumb-screws. This arrangement enables the two splints to be connected and adjusted at any angle, and, by simply tightening the screws, to be retained in that position.

The popliteal portion is simply a wooden back splint, four inches long, to which two straps and buckles are attached. After the dressings are applied to the wound, this splint is applied and buckled across the two top horizontal bars, and thus affords additional support to the popliteal space. This portion of the splint is removed at each dressing.

The mode in which the splint is applied is as follows:—When the operation is completed and all hæmorrhage is arrested, the femoral portion of the splint, with the felt well soaked in varnish, is applied to the thigh and laced up the front. The leg portion is then put on and fixed in a similar manner, and, the surgeon fixing the cut ends of the femur and tibia in the position required, an assistant tightens up the thumb-screws, and the whole limb is thus fixed and the joint rendered perfectly immovable.

As will be seen from the woodcut, there is ample room for any form of dressing. The apparatus is adapted for united fractures and other injuries requiring complete immobility and perfect adjustment of the ends of bones.

The splint is manufactured by Messrs. Wood, of King-street, Manchester.

VACCINATION GRANT.—The Local Government Board have awarded T. Pemberton Simpson, M.D., the sum of £87 for efficacious vaccination in the Southsea district. This is the second award Dr. Simpson has received during the last year and a half.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

CASE OF FRACTURE OF BOTH CLAVICLES, AND OF THE THREE UPPER RIBS ON THE RIGHT SIDE; WITH PERMANENT ARREST OF THE CIRCULATION THROUGH THE RIGHT SUBCLAVIAN ARTERY; SUBSEQUENT DEVELOPMENT OF BONE, RESEMBLING EXOSTOSIS.

(Under the care of Mr. JAMES LANE.)

FOR the following interesting notes we are indebted to Mr. Sworder, house-surgeon.

A boy, aged fifteen, was admitted Dec. 18th, 1875, in an alarmingly collapsed condition. In attempting to get out of a train in motion he had slipped, and had been crushed between the carriage and the platform, having been dragged onwards for several yards. He was put to bed at once; stimulants were given, and a hot bottle was applied to his feet. In an hour or two he had recovered somewhat from the collapse, but his breathing was much embarrassed. Examination revealed fracture of both clavicles, the right being broken a little internal to its centre, with the outer end driven downwards and inwards upon the first rib. The three upper ribs on this side were also broken at about their centre, fracture of the second and third being made out at once by examination of the axilla, that of the first becoming evident subsequently during the progress of the case. The left clavicle was broken just outside the attachment of the coraco-clavicular ligaments, the short outer portion being so displaced that the acromial end was directed obliquely downwards and forwards, as is usual with a fracture in this situation. The skin over both scapulæ was extensively lacerated. The compressing force seemed to have operated upon the shoulders from behind, and to have forced them forwards and inwards, causing both clavicles to give way, and then on the right side expending itself on the upper ribs.

The patient was placed on his back, with his head and shoulders slightly raised, but his inability to bear any pressure on the chest, together with the laceration of the skin over the scapula, rendered it impossible to apply bandages to keep the fractures in position. The arms were simply brought to the side with the forearms folded over the abdomen and fixed there by a bandage very lightly applied. The wounds on the back were treated with simple dressing.

On the next day there was extreme distress and difficulty of breathing, with much fever. His pulse was 160, respiration 60, and temperature 103°. He was therefore ordered to be bled from the arm, and though only three ounces of blood could be obtained this was attended with marked relief, for in the evening the pulse had fallen to 130, the respiration to 40, and the temperature to 99·4°.

Dec. 21st.—The breathing was less embarrassed. Temperature 100°; pulse 130; respiration 34. Bowels were freely acted upon. It was now found that there was no pulse to be felt at the right wrist or in any of the arteries of that limb, and the boy complained also of numbness in the right little finger. The subclavian artery was doubtless compressed by the broken clavicle against the first rib, and the lowest nerve of the brachial plexus was interfered with to a slighter extent by the same means.

On the 24th he was going on well. Pulse 108; respiration 32; temperature 99°. He was quite unable to move himself, and complained of great difficulty in breathing when raised to have the wounds over the scapula dressed. Any attempt to improve the position of the clavicles was attended with so much pain and distress that it was at once abandoned. The application of bandages or axillary pads for this purpose was obviously out of the question. The pulse at the right wrist could not be restored by any

movement which it was possible to make at the right shoulder.

From this time he slowly improved, but it was not until three weeks after the accident that he was able to sit up in bed without distress. By that time the fractures appeared to be consolidating, and the wounds on the back were granulating healthily. On Jan. 25th, 1876, he was allowed to walk about the ward a little, and his diet, which had hitherto consisted of beef-tea, milk, and eggs, was changed to "ordinary." On Feb. 15th he was well enough to leave the hospital, but was directed to attend twice a week as an out-patient.

At the date of his discharge, eight weeks after the accident, all the fractures seemed firmly united; both arms could be moved to a limited extent without causing him pain. In the right clavicle there was overlapping of the fragments to the extent of three-quarters of an inch, the outer piece being depressed upon the first rib, and the prominence of the shoulder on that side being obviously diminished. By examination from the axilla, the seat of fracture of the three upper ribs could be made out. There was no return of pulsation in the vessels of the arm. On the left side, the short acromial portion of the clavicle was directed forwards and a little downwards, and rode slightly over the inner fragment; the latter having been maintained in its normal position by the coraco-clavicular ligaments.

Four months after the accident the boy had regained free movement of both shoulders, and seemed perfectly recovered. Since he left the hospital, an elongated hard substance had been developed at the lower part of the neck on the right side, parallel with the outer border of the sterno-mastoid muscle. It passed behind the clavicle, and seemed to be firmly fixed at its lower end. It caused no pain or inconvenience. The most probable explanation of this would seem to be that the bony matter thrown out for the union of the fracture of the first rib had extended upwards in the nature of an exostosis in the tendon of the scalenus anticus muscle.

Remarks.—Simultaneous fracture of both clavicles is a rare injury. Malgaigne could only meet with six recorded examples of it; and, singularly enough, in three of these no union took place. In one of the six, one clavicle was broken directly by a blow, and the other indirectly by a fall on the opposite shoulder consequent upon the blow. In another the first fracture was caused by a fall, and the second by the wheel of a carriage passing over the opposite shoulder. In a third both the fractures were caused by transverse compression operating upon both shoulders at the same time. Hamilton records four cases of double fracture out of 158 fractures of the clavicle in the New York Hospital. None of these, however, were accompanied by fracture of the ribs, which proved so serious a complication in this case, and prevented the adoption of any measures to keep the fractured clavicles in position. Fracture of the first rib is equally rare, this bone being so well protected by the clavicle, the pectoral muscles, and the shoulder that it can hardly be reached except by a very powerful compressing force after the clavicle has given way.

Injury of the subclavian vessels and of the brachial plexus of nerves has been occasionally met with, but in most cases it has accompanied comminuted fractures produced by direct violence. Mr. Holmes mentions a specimen in the museum at St. George's Hospital, showing the internal jugular vein punctured by a fragment of the clavicle; and the death of the late Sir R. Peel was caused by an injury to the subclavian vein produced in the same way. Mr. Erichsen has recorded a case in which compression of the subclavian vein by a broken clavicle rendered amputation at the shoulder-joint necessary. Mr. Bryant mentions a case of fracture of the clavicle followed by arrest of pulsation in the artery of the corresponding arm. In the case here recorded, the fracture of the first rib in the immediate neighbourhood of the artery may have contributed to its obliteration.

Injury to the nerves, causing paralysis more or less complete, seems to be more frequent than injury to the vessels, but it has generally been associated with severely comminuted fractures. In many cases it has not appeared till some time after the accident, and may have been the result of too tight bandages and too large an axillary pad. In this instance the damage to the nerve must have been slight, for the symptoms speedily passed away.

ST. THOMAS'S HOSPITAL.

CASES OF LITHOTOMY.

(Under the care of Mr. SYDNEY JONES.)

For the notes of the following cases, which have recently been treated at this hospital, we are indebted to Mr. S. Osborne, registrar.

CASE 1.—*Lateral lithotomy in a man aged sixty; six calculi removed; recovery.*—G. S——, aged fifty-nine, a gardener, from Hackney, was admitted into Edward's ward July 22nd. He stated that in the previous October he first noticed gravel in his water after a catheter had been passed for retention, and that he had occasionally had difficulty in passing water for the last thirty years. About eight years ago he was in Westminster Hospital for ten weeks with a perineal fistula, which was treated by catheterism, that being the first time a catheter had ever been passed. In February, 1874, he was in University College Hospital, when a small stone was extracted from the urethra.

On admission he complained of great pain in the perineum, with a bearing down on going to stool; having to pass water during the day nearly every half hour, and during the night almost constantly, the irritability of bladder being, according to his statement, always much worse when he was lying down. Urine very ropy; specific gravity 1010, and containing about one-third of albumen. He had suffered from frequent attacks of cystitis and hæmaturia. The prostate was enlarged. On a sound being passed by Mr. Sydney Jones a calculus was detected, and it was diagnosed that two calculi, if not more, were present. The patient was in a very unsatisfactory condition for any operative interference. He was ill-tolerant of the passage of instruments, although there was no stricture. The patient himself wished for lithotomy rather than litbotrity, and his condition indicated recourse to that operation, which would involve the least prolonged irritation.

On October 3rd lithotomy was to have been performed, but was deferred on account of a pretty sharp attack of hæmaturia. The operation was done on October 14th, the lateral method being used. Very little bleeding occurred. Six stones of uric acid were removed, varying in size from a hazel nut to a small walnut. A tube was passed for twenty-four hours into the bladder. After the operation, no bad symptoms occurred. The patient uninterruptedly improved. The albumen in the urine gradually lessened, until not any was discernible.

On November 3rd, one month after operation, hardly any urine came by the wound; and on the 5th not any at all. Much irritability of bladder remained for some days. This was relieved by morphia suppositories. On December 10th he was up, and walking about the ward, and left the hospital cured on the 23rd of December.

CASE 2.—*Lateral lithotomy in a child; recovery.*—A. R——, aged two years and a half, residing in Walworth, was admitted into Victoria ward on October 6th. It was stated that six months previously pain was first complained of in passing water, and that six weeks before admission the urine was very thick, and contained blood. The general symptoms of stone were present—viz., frequent micturition and stoppage of stream, with pain, when making water, followed occasionally by a few drops of blood. Urine cloudy, with lithates; non-albuminous; specific gravity 1024.

On October 14th lateral lithotomy was performed by Mr. Sydney Jones, and a small oblong stone extracted, about the size of a coffee bean, of uric acid. But slight hæmorrhage occurred. The patient went on uninterruptedly well. The highest temperature was on the evening of the day of operation, when it reached 101°, subsequently falling to normal.

The urine was rather slow in passing by the proper channel; this began on October 28th, and on the 1st November all came by the urethra. The patient left the hospital cured on November 17th.

CASE 3.—*Lateral lithotomy in a man aged seventy-four; recovery.*—J. L——, aged seventy-four, gardener, was admitted into Edward ward, May 10th, 1875. He had suffered from pain about his bladder for several years, and for the last nine months had specially complained of pain on micturition, with sudden stoppages in the flow of urine, which

occasionally contained blood after much exertion. He stated that about nine months ago he passed a small rough stone. There was only a slight trace of albumen in the urine. Mr. Sydney Jones sounded the bladder and detected a stone about the size of a pheasant's egg.

The patient was a rather thin, wiry man, was intelligent, and seemed well coached up in the differences between cutting and crushing. He pressed particularly to have some anæsthetic and have all done at once. He seemed a fair subject for lithotomy, so that on May 19th, the patient being under the influence of ether, lateral lithotomy was done by Mr. Sydney Jones. A uric acid stone, roughened by incrustation with phosphates, measuring one and a half by one inch, was removed. Rather free hæmorrhage followed, apparently from the prostatic veins. Compression was used by means of an umbrella plug firmly, perhaps rather too firmly, stuffed with lint.

After operation his morning temperature varied from 100·2° to 97·6°, and in the evening from 101·6° to 99·2°. The tube was removed on the second day. Six days after the operation, the urine having been perfectly clear before, it was discovered that some fæcal matter escaped from the wound. On examination an opening in the rectum was found about an inch above the anal orifice. It was probably due to sloughing, from pressure of the tube, with surrounding lint, passed into the wound. On the 28th tenderness was complained of, with slight swelling of the left testicle. This soon passed away. On June 16th, the urine, which had passed along the urethra for a few days after the removal of the tube, then ceasing, now resumed its proper passage, and daily increased in quantity in that direction. After June 19th, for a week or ten days no fæcal matter passed from the wound, but then a small quantity did pass. The patient progressed until only a small sinus existed in the perineum, which gave exit to a few drops of urine, and, when the bowels were relaxed, to a trace of fæcal matter. Examination per rectum barely allowed a director to pass into the perineal sinus. The patient suffered but little and only occasional inconvenience, and, declining further interference, was dismissed from the hospital.

WEST RIDING LUNATIC ASYLUM.

CASE OF EPILEPSY OF TRAUMATIC ORIGIN; HÆMORRHAGE FROM VESSELS AT THE BASE OF THE BRAIN.

(Under the care of Dr. MAJOR.)

THE following record, for which we are indebted to Mr. Robert Lawson, M.B., is replete with interest, whether it be regarded from a physiological and pathological or from a purely clinical point of view. The notes are extended, but unavoidably so; a more or less complete history being essential to a right comprehension of the various abnormal manifestations.

B. W—— was admitted on May 23rd, 1873. His symptoms were those of epilepsy, with excitement and dementia. His relatives stated that till he was six years old he was a bright intelligent boy. When at that age, however, he was knocked down during a Royal procession through Leeds, and his head was run over by a carriage-wheel. From that time he began to have fits, which increased gradually in number and severity till he fell into a state of dementia. He was sent to a London hospital, and while there had necrosis of the bones of the skull. His mother stated that one or two pieces of bone had been removed from the right side of his head. There was no family history of epilepsy or of any allied disease. When admitted, the patient was very stupid and demented. He was listless, drowsy, and reticent. To some extent he understood what was said to him, but did not know his age, and to most questions answered "I'm sure I don't know." His speech was low and drawling. He was wet and dirty, and had to be fed and dressed. Physically he was fairly well, and there was no derangement of any of the main systems of organs. The pupils were normal, but the cornea of the right side was opaque. The upper lid of the same eye was drawn upwards by a cicatrix which involved the whole of the right temple, and in the postero-parietal region there was a small depression in the bone, surrounded by small bony projections.

The following is an abstract of the record of the case:—

May 28th, 1873.—The patient had a severe fit yesterday, and has had many less severe ones, especially at night.

June 6th.—Is having four or five fits a day, and a great deal of noisy excitement and muscular agitation. Ordered twenty grains of bromide of potassium twice a day.

16th.—No change. Bromide stopped, and inhalations of nitrite of amyl ordered every hour.

26th.—The bromide was resumed a week ago, and he has improved very much. He has not had even a slight fit for three or four days. He is less dirty, and can wash and feed himself. The bromide is to be increased to thirty grains three times a day.

Sept. 13th.—He has not had any fits for a long time. He is gaining flesh, and works in the shoemaker's shop.

Oct. 15th.—Fits much less severe and less frequent. He has had only one during the past month. Since the fits became reduced in number he has gained flesh and strength, but has been liable to paroxysms of excitement, in which he fights fiercely, and yesterday he had a severe and prolonged struggle with another patient. This excitement made it necessary to withdraw him from the workshop.

During the year 1874 he continued to be aggressive and quarrelsome, and up to January of the present year his symptoms consisted of frequent fits, and repeated attacks of excitement. During the whole of this period he had an offensive discharge from the left ear, and in September, 1875, had a small abscess behind that ear, but no bone was emitted from it.

Jan. 25th, 1876.—He has had a very serious attack of hæmorrhage from the mouth, nose, and left ear. The blood was pure arterial and came in so plentiful a stream that about a quart was parted with in five minutes.

29th.—He has had another smart attack of hæmorrhage in which he lost about a pint and a half of blood. In these attacks the attendant had orders to hold his hands over his head whenever the bleeding commenced. This treatment was generally followed up by the hypodermic injection of five to ten grains of ergotine on the arrival of the medical officer. Though both of these measures were apparently useful, yet the bleeding was generally so suddenly arrested that it is much more probable that it stopped spontaneously. Considering the known element of the case and the rapidity and alarming extent of the hæmorrhage, it was now diagnosed that caries at the base of the brain leading to the ulceration of some large vessel or vessels was the cause of the recurrent attacks. Iodide of potassium and cod-liver oil were ordered. Before the bleedings came on he was seen to be very pale and to have lost strength.

30th.—Has had a severe bleeding again. His pulse is very weak and he is exceedingly anæmic.

Feb. 4th.—No recurrence since last report. His pulse is stronger and he is on the whole much better.

5th.—Lost about a pint of blood.

12th.—Yesterday he had another severe attack of hæmorrhage.

16th.—Lost about a quart of blood. The hæmorrhage was seen by the medical officer. The blood came from both nostrils and from the left ear. From each nostril there was a constant stream of about one-sixteenth of an inch in thickness, and that from the ear was a mere trickling. It was presumed that the main current of blood ran along the course of the olfactory grooves and through the broken-down cribriform lamellæ. The structure of the left ear had now been damaged, and the patient was very deaf.

21st.—He had a severe fit to-day.

26th.—He has had a recurrence of the hæmorrhage.

March 4th.—Has had no return of bleeding. He is much better, and is to get up.

7th.—He has had a slight attack of bleeding this morning.

14th.—He had a severe fit yesterday, but no hæmorrhage. Between the bouts of bleeding he improves in physical condition amazingly. He is querulous and stupid, and sometimes refuses his extra diet, but is much attached to several of the excited occupants of the same ward, who form a body guard around him to protect his delicacies from the encroachments of predatory epileptics.

April 20th.—He has had several attacks of sickness, which caused bouts of hæmorrhage. It was frequently observed that epileptic fits never brought on, nor were associated with, hæmorrhage, but that sickness almost in-

variably caused bleeding. This observation suggested two things: first, that the lesion which caused the hæmorrhage was not identical with that which produced the epilepsy; and, secondly, that the condition of the circulation of the brain during epilepsy was, in this instance at least, widely different from that present in vomiting.

On the evening of April 20th, the patient, after a respite longer than usual, had a frightful outburst of bleeding from the mouth, nostrils, and left ear. When the medical officer arrived, B. W—— was found to be having slight general convulsions, and immediately afterwards he had two or three stertorous respirations, after which life appeared to be gone. He was turned on to his side, and his mouth was cleared. Artificial respiration was practised. At the same time a stimulant injection was administered. The respiration was re-established, but only for a very short time. Passive movements of the respiratory muscles were maintained for half an hour, but resuscitation was impossible.

It may be added that in this case the epileptic convulsions were so general that no exact localisation of the lesion producing the epilepsy could be suggested. There was no paralysis.

Post-mortem examination.—The autopsy was held forty hours after death. The body was fairly nourished, but its surface very pale and blanched. Rigor mortis was present, but there was no hypostatic congestion. On the right side of the head, in the region of the frontal eminence, and extending backwards as far as the outer end of the superior curved line of the occiput, there was a white puckered scar about an inch in breadth. The upper eyelid of the right eye was also involved in and drawn up by the cicatrix. On removing the scalp there was found to be a depression in the skull, commencing at the right parietal eminence, extending downwards and backwards for about an inch and a half, and gradually deepening till at its termination its floor consisted of fibrous tissue filling up a breach in both plates of the bone, which was circular in form and about as big as a threepenny piece. In front of this depression there was slight roughening and elevation of the external plate. In this region, and over the cavity, the periosteum was thickened and adherent. On removing the skull-cap it was found that at the site of the small opening in the cranial wall the subjacent membranes adhered to the bone, to each other, and to the brain, and that in the act of removal a portion of dirty softened grey matter was left adherent to the inner surface of the calvaria. There was only slight opacity of the membranes and little or no wasting of the convolutions except in the neighbourhood of the opening in the skull. At this spot there was brown discolouration, softening and wasting of the cortical substance extending over the surface for about an inch in length and half an inch in breadth, and affecting the angular gyrus on the right side. On the orbital lobule on both sides there were lines of brown staining running parallel to the olfactory sulci, and apparently resulting from previous pressure of blood. On the first temporo-sphenoidal gyrus of the right side there was a brown film evidently formed by altered blood, and about the middle of the left orbital lobule there was a small pit with brown walls, also apparently resulting from the pressure of blood. The whole brain-substance was blanched and anæmic, and there was no trace of internal clot. The degeneration of the grey matter corresponding to the breach in the cranial wall was found to be continuous with a distinct cavity in the white matter, the walls of which were of a brown colour. On examining the base of the skull it was found that the upper and inner aspect of the petrous portion of the temporal bone on both sides presented a ragged, rough, unsymmetrical surface, being in some places formed into sharp, irregular ridges, about a quarter of an inch in height. The upper aspect of the petrous portion on both sides was very rough, and immediately posterior to the carotid canal on the right side there was a deep depression, the walls of which were anteriorly elevated into a sharp ridge overhanging the upper end of the canal. The canal itself was partially obstructed by rough projections from its bony walls. On the left side the roughness and brown discolouration of bone extended much farther back, and the upper end of the carotid canal was almost occluded by a cribriform projection of bone, which was rough and of a deep brown colour. With pressure the canal admitted a round instrument about one-eighth of an inch in diameter. There was brown staining of the dura mater over the petrous portion of both temporal bones. The other organs were healthy.

Observations.—There were two main elements in this case—(*a*) epilepsy, and (*b*) hæmorrhage. That the epilepsy was due to injury of bone and membranes over the angular gyrus of the right side, and probably to damage of the brain-matter itself, admits of little doubt. How far the appearances of inflammation and degeneration of bone around the carotid canals were traceable to the primary injury it is almost impossible to determine. With regard to the epilepsy, one or two passing observations are admissible. First, when the patient was brought to the West Riding Asylum the fits had become dependent on too wide a range of causes to admit of exact localisation of the original lesion. Secondly, the development of excitement after partial suppression of convulsions by large doses of bromide of potassium is an instance of what is frequently observed in this asylum. Repeatedly patients who appear to be almost if not altogether cured of their fits by the use of that drug, break out into unexpected attacks of destructive or homicidal excitement, and afford striking evidence of the correlation of mental with motor irritability. This observation has acquired strong confirmation from the interesting investigations of Dr. Bevan Lewis, of this institution, who, in papers published during the present year establishes the belief that this correlation exists not only between convulsions and excitement, but also between convulsions and the evolution of heat. With regard to the hæmorrhage, the appearances presented after death went to confirm the opinion formed during life, that the bleeding resulted from rupture of some large vessel or vessels at the base of the brain. The condition of the bone around the carotid canals renders it probable that at their upper part the internal carotids were very much reduced in calibre, and also suggests that friction of the walls of the carotids, or more likely of some of their large branches, against the roughened bone may have produced recurrent ruptures and consequent hæmorrhages. The diminished arterial pressure following on great loss of blood must have led to a comparative cessation of the mechanical rubbing of vessels against the roughened osseous surfaces. To this cause may be traced the total freedom from hæmorrhage between the severe outbursts, while the recurrence of the latter as soon as the patient's physical condition improved and his bloodvessels became fuller, is also explicable by the increasing and consequent tendency to laceration of the vascular walls by their pulsatile grating against denuded and roughened bone.

Reviews and Notices of Books.

An Introduction to Animal Morphology and Systematic Zoology. By ALEXANDER MACALISTER, M.B., Professor of Comparative Anatomy and Zoology, University of Dublin. Part I. Invertebrata. London: Longmans.

THIS is a sound and accurate introduction to Animal Morphology, its only fault being that it is almost too much condensed, so that the meaning sometimes becomes obscure. Dr. Macalister states that his reason for writing it has been the desire expressed by students "to have a text-book in their hands to enable them to learn the terminology of the science, and, by giving them a connected view of the varieties of animal forms, to assist them in remembering the practical instruction of the class-room." The present volume embraces only the Invertebrata. We can entertain no doubt that it is well adapted to enable Dr. Macalister's students to follow his lectures, and freely admit that it is extremely difficult to make a book of this kind interesting. Still, if its pages are looked over by anyone who will place himself in the position of a student and with no more knowledge than a student is likely to possess, we can scarcely imagine anything more uninviting. Fancy the amount of information a lad of twenty, who had no opportunity of seeing drawings or specimens of the animals referred to, would obtain from reading—

"Amphicteneidæ—tubicolous, heteronomous, with three body regions; prostomium united to the peristorm, with a middle lobe and two bundles of thread-like gills; tail segments with imperfect rings; gills simply (Pectinaria) or complexly comb-shaped (Scalis) or elongated; anal cirri one (Scalis) or two (Amphicteis)."

A few pages of this would, we think, go a long way with the most earnest student.

What an improvement the introduction of a large number of outline drawings, which really need not be very expensive, would be to the book—such drawings, for instance, as illustrate Wedgwood's Treatise on Insects.

We cannot give a better example of the general style in which the book is written than the following account of the alimentary canal of the Gasteropoda, p. 290:—

"The stomach is usually simple, thin-walled, pouch-like, rarely four-angled, with four tooth-like projections (Pterotrachea), often with cæcal pouches projecting from it towards its cardiac or pyloric ends; its epithelium is columnar (Heteropoda) or ciliated in tracts, and often elevated into tooth-like processes (Telescopium) or lobular projections (Mitra). It is gizzard-like in Aplysia, with cartilaginous pyramids in its wall, and is lamellated with cartilage-plates in Umbrella. The folds of its lining may be armed with hard, epithelial, cutting ridges (Tritonia, Scyllæa). In Philine the large stomach fills half the body-cavity, and has thin bony plates in its wall. Scaphander has similar three-sided plates, with rounded angles. The beginning of the intestine in Aplysia, Tethys, and Pleurobranchus is dilated; in Aplysia hidden in the liver, and is sometimes regarded as a third stomach. The intestine is short, ciliated, simple, and ends usually forward and on the right side, rarely posteriorly (Vaginulus, Onchidium), in an often wart-like anus, never lying in the respiratory cavity. Its wall consists of a muscular stratum, mostly of circular fibres, but with longitudinal intermixed, not in separate layers, often with oval calcareous concretions freely scattered in it. The rectum is differentiated in Prosobranchs, and is often dilated and longitudinally folded within on the right side of the mouth-cavity. The intestine is shortest in flesh-eaters like Buccinum, sometimes straight with no flexion (Apneusta Phlebenterata). In pulmonates and vegetable feeders, like limpets, it is long and coiled. A crystal style, like that of bivalves, exists in Bithynia, Strombus, Trochus, &c., in a pyloric cæcal pouch. The primary flexure of the intestine is hæmal in branchiate, neural in pulmonate forms. The anus has a sphincter, and in Purpura and Murex grape-like excretory glands open into it. Entoconcha, Rhodope, and some other Apneusta are aproctous. The mouth and anus are never on the same medial plane, but in some Opisthobranchs the latter is medio-dorsal. A transverse mesentery is only found in the last-named group."

Kliniske Studier over Kronisk Morbus Brightii (*Clinical Notes on Chronic Bright's Disease*). By EDWARD BULL, Assistant-Physician to the Rigs Hospital, Christiania. 1875.

IT is gratifying to find in Scandinavia so intelligent an appreciation of chronic Bright's disease as this treatise affords. It is a work which, laying claim to no originality, is of value as showing the extent to which chronic renal affections prevail in the Norwegian capital, being based upon cases that have come under the author's observation for the past fifteen years. Dealing only with those examples which were examined after death, the number of cases upon which his conclusions are based is necessarily few, but for the same reason they are accurate and beyond dispute. The essay opens with a brief summary of the present state of opinion regarding the varieties of renal affection, classed under the one head of "Chronic Bright's Disease"; and, having pointed out the differences of opinion regarding the various forms, Dr. Bull declares himself as in accord with the subdivisions of Dr. Grainger Stewart and Bartels. He has thus three classes of disease—viz., that typified by the large white kidney, of which he has only observed seven fatal cases; that known as the cirrhotic or granular kidney, of which eighteen examples occurred to him; and of the remaining group—viz., cases of amyloid kidney—no fewer than sixty-three fell to his share. The comparatively large number of the latter form of disease cannot fail to attract notice, and the author himself draws attention to it. The etiological history of the amyloid kidney is the same in all countries, and the striking fact about these statistics is the relatively small amount of the granular and inflammatory kidney. It would appear that granular kidney is rare in Norway. This is the more evident when we find that the eighteen cases collected are out of a number of 1837 autopsies made at the Rigs Hospital in the fifteen years. The author remarks that cirrhosis of the liver is equally rare in that country. The essay, although interesting, contains but little that is new.

OUR LIBRARY TABLE.

A Manual of Midwifery. By ALFRED MEADOWS, M.D., F.R.C.P. Third Edition. London: Henry Renshaw.—We are glad to see a new edition of this useful little manual, to which new matter and upwards of sixty drawings have been added. The chapter on Puerperal Fever has of course been altered, in accordance with the recently expressed views on the subject, but it would have been a further improvement had Dr. Meadows omitted from the part on treatment all the transcribed portions about venesection, "pleno rivo," "from a large opening," "to syncope," to be repeated if necessary, and followed by nauseating doses of tartar emetic, a course from which he most emphatically dissents, which few would dare to follow, and the very perusal of which must confuse a student. We should prefer to have seen more stress laid upon the intra-uterine injection of disinfectant solutions, with more definite directions as to their strength and mode of employment. Still we can, as heretofore, strongly recommend the manual to both students and practitioners.

Surgical Emergencies; together with the Emergencies attendant on Parturition and the Treatment of Poisoning. A Manual for the use of General Practitioners. By WM. PAUL SWAIN, F.R.C.S., Surgeon to the Royal Albert Hospital, Devonport. Second Edition. London: Churchills.—We are not at all surprised at a second edition of this capital manual having been called for, and, spite of the modest disclaimer on the part of the author to the effect that this is not a proof of the intrinsic value of the book so much as of the want that it partially supplies, we are of opinion that the popularity of the work is due to both causes. The materials are well selected and arranged, indicating that the author has been at the pains to make his book thoroughly what it pretends to be—a practical guide in emergencies, clear and concise without being what such manuals often are, scrappy as to the thing that one does want to know, and full as to those matters which everybody knows.

How to Use the Ophthalmoscope. By EDGAR A. BROWNE. London: Trübner and Co.—Experience in *viva voce* teaching has taught the author that students of ophthalmoscopy are especially prone to try to run before they can walk, and we must all be aware of many instances in which failure in the coveted rapidity of progression has caused a valuable branch of medical science to be discarded with dislike. These elementary instructions have, therefore, been arranged for those who will patiently study the healthy structures of the eye before they hasten "to flash the light unsteadily in front of a case of glaucoma, or other disease with a definite name"; and, accordingly, in four sections, comprising little more than a hundred pages, the optical principles, the ophthalmoscope, appearances of healthy structures, and appearances of disease, are treated in a simple rudimentary manner, such as will give the student a sound basis from

which to advance to more elaborate investigations, and we can consequently recommend this little book to those who are willing to begin from the beginning.

An Introduction to the Elements of Pharmacy. By F. HARWOOD LESCHER (Pereira Medalist). Fifth Edition. London: J. & A. Churchill.—In this edition are comprised the additions of the British Pharmacopœia published in 1874. Its essential character is the columnar or tabular arrangement, by which the salient points in materia medica, botany, chemistry, pharmacy, prescriptions, and practical dispensing are epitomised, and a perfect remembraneer produced. The work, although too cramped for those previously unacquainted with the subject, forms a series of ready-made notebooks on the courses of lectures indicated, and must prove an efficient aid to students preparing for examination.

Air, and its Relations to Life. By W. N. HARTLEY, F.C.S., &c. Second Edition. London: Longmans, Green, and Co. 1876.—This is the second edition of a little work published last year, and founded upon a course of lectures delivered by its author at the Royal Institution in the summer of 1874. The subject-matter of these lectures struck us, on reading the first edition, as being well-arranged and clearly expressed, and the illustrations as both numerous and good. That the opinion we formed of the merits of the book was correct is evidenced by the speedy call for a second issue. We may add that the present edition has been enlarged by the addition of new matter, while the old has undergone revision.

The Five Senses of Man. By JULIUS BERNSTEIN, Professor of Physiology in the University of Halle. London: Henry S. King and Co. 1876.—This is one of the admirable International Scientific Series, with some of the volumes of which most of our readers are doubtless acquainted, and it is, in our opinion, one of the best of that series. The author disclaims all intention of having written an exhaustive, systematic, or popular treatise, but he has succeeded in producing a reliable, clear, and, as far as our examination of the volume extends, scientifically accurate, but readable, description of the subjects on which he has written.

Food Chart. Giving the Names, Classification, Composition, Alimentary Value, Rates of Digestibility, Adulterations, Tests, &c., of the Alimentary Substances in General Use. By R. LOCKE JOHNSON, L.R.C.P., L.R.C.S., L.S.A., &c. London: Hardwicke and Bogue.—There appears to be in the present day a fashion for charts of all kinds; thus we have charts anatomical, physiological, pharmaceutical, historical, geological, and so on. The idea appears to be borrowed from the lecture- and school-room. The Food Chart includes a wide range of articles of diet, is well worked out, and judiciously planned, and will form a convenient and useful reference to the student, and to the busy practitioner who wishes to refresh his memory and has but little time to consult standard works. We would remark, however, that water has not been mentioned in an otherwise very complete list of alimentary substances in general use. It appears as necessary to draw attention to its impurities as to notice those of the aerated waters.

Sanitary Work in Villages and Country Districts. By GEORGE WILSON, M.A., M.D., F.C.S., Medical Officer of Health Mid-Warwickshire Sanitary District. London: Churchills. 1876.—We recommend this pamphlet, by the author of the "Handbook of Hygiene," to the attention of all interested in the subject as a very practical little work, likely to be especially useful to those who, like its writer, are engaged in sanitary work.

Virchow's Archiv. Band 66; Heft 4.—The chief papers in the current number are as follows:—An elaborate study of Traumatic Keratitis, by Dr. Ernst Fuchs; a series of Anatomical Notes by Dr. Gruber; a paper on the Pathology of Cauliflower Excrescence, by Dr. Hermann Beigel; an account of some Experiments on the Effects on Temperature of Traumatic Lesions of the Nervous System, by Eulenberg and Landois; and a lengthy, and apparently weighty, series of objections to Liebermeister's System of Calorimetry, by Dr. Winternitz, of Vienna.

Monthly Microscopical Journal. No. XC. June 1st, 1876. Edited by Dr. LAWSON.—The contents of this number are only of interest to professed microscopists. They embrace (1) an article on the Markings of the Body-Scale of the English Gnat and the American Mosquito, by Dr. J. J. Woodward; (2) Notes on Micro-Photography, by Surgeon-Major Edward Eager; (3) on Renulina Sorbyana, by J. F. Blake; (4) Remarks on Frustulia and Navicula, by Charles Stodder; and (5) on the Measurement of the Angular Apertures of Object-glasses, by Jabez Hogg.

THE COMPARATIVE ANATOMY OF THE PLACENTA.

BY PROFESSOR TURNER.

IN his third lecture (on June 23) Professor Turner stated that he had been also enabled to examine a specimen of early human ovum contained in Guy's Hospital Museum. The specimen, which was of slightly older date than that of Dr. R. J. Lee, bore out what he had stated with regard to that. It indicated clearly the manner in which the chorionic villi become attached to the decidua. The villi, becoming more and more branched, interlace with processes of the decidua. Under higher magnifying powers, the whole decidua is seen to be composed of a complex network, in the interspaces of which the prolonged chorionic villi are retained. The maternal part of the placenta is seen to be highly cellular, the cells being recognisable as of those various forms which are found in the decidua serotina at an earlier stage. All the larger decidual processes are composed of these epithelial like cells, but the more slender offshoots are made up of a delicate connective tissue, with here and there corpuscles imbedded. By this passing inwards of decidual processes there are carried into the placenta vascular processes of the uterine mucosa; the bloodvessels so introduced being in the form of sinuses. The formation of this maternal sinus system has attracted much attention at different periods, and different explanations of it have been afforded. The lecturer then drew attention to three diagrams showing the surface of the decidua vera at different stages of development—viz., at the fourth, fifth, and ninth months respectively. Each showed the appearance of gland openings on the surface of the membrane; but at the ninth month the glands themselves had become reduced to mere shallow pits or depressions. He referred also to the great cellular hyperplasia that takes place on the formation of the decidua serotina, and as to the decidua reflexa he believed that Reichert's view as to its formation was the correct one—viz., that as the ovum becomes encapsuled, the mucous membrane grows up on each side around it.

Passing then to a description of the placenta in the last month of pregnancy, Prof. Turner showed a diagram representing a vertical section through the organ and the uterine mucous membrane, by which chorionic villi were distinctly seen passing through to the decidua serotina, to the inner surface of which they were attached. The shed placenta is composed of various lobes, separated by processes from the decidua serotina, each process consisting of a double bar one half of which belongs to one lobe and the other half to the adjacent lobe. In the muscular walls of the gravid uterus there are, as is well known, numerous large blood-sinuses; and it has long been a matter of dispute as to whether the maternal blood ever enters the placenta at all. John and William Hunter were the first to inject the uterine arteries and veins, and from their injections they inferred that the

maternal blood did find its way into the placenta. The Hunterian Museum contains some of the original preparations showing this fact. It has, however, been objected that under the force of the injection the uterine vessels were broken down. Prof. Turner has accordingly carefully repeated these injections, employing size, isinglass, or pure glue, instead of wax, as the injection material. He has found that, with the employment of hardly any force, the injection material finds its way through the maternal vessels into the interior of the placenta. Careful dissection shows the presence of communications between the utero-placental veins and the interior of the placenta, the blood entering the placental sinuses by means of the "curling arteries." These arteries, being furnished with very delicate walls, can only be seen in their entirety by careful dissection. The blood is returned from the placenta by means of the utero-placental veins, which leave the placenta by means of openings in the decidua serotina. Then along the margin of the placenta runs a large vein, commonly styled the "circular sinus," but better called the "marginal sinus," which being laid open shows a number of apertures partly filled by projecting villi. In one of Van der Kolk's drawings there is to be seen a large utero-placental vein opened up from its uterine aspect; numerous apertures can be seen in it, with villi in relation to them.

Passing to the relation between the fœtal villi and the maternal blood, the lecturer stated that some believed that the villi were freely exposed to the blood, others that a layer of tissue derived from the maternal structures covered the villi. The examination of a gravid uterus at the eighth month showed that at that stage certainly there is a prolongation of the maternal tissue into the placenta, and Professor Turner believed that this remained, although in a much thinned-out state, to the time of parturition. The chorionic villi are composed of a vascular connective tissue covered by a well-developed layer of cells, which, in the early stages, are squamous, but later resemble more those found in the decidua serotina; there was, in fact, a substitution of the early chorionic epithelium for the cells of the decidua serotina, the layer of cells thus formed being precisely homologous with that lining the uterine "crypts" in the lower animals.

Professor Turner then summed up the chief facts which had been brought together during the two courses of lectures. He said that the placentation of all mammalia was derived from one single type. In its most generalised form the placenta was composed of a fœtal and a maternal membrane, each provided with its special layer of epithelium, beneath which were bloodvessels. The simplest specialisation was when the fœtal membrane was folded into ridges and villi which were imbedded in corresponding crypts in the maternal membrane. Such a form was that presented by the pig. Or the villi were branched, and were received into correspondingly branched crypts, as in the mare. So in the cotyledonary placenta of the ruminants, the ramifications of the villi and crypts become more complex. In the cat the villi are broader, and give off large lateral offshoots; the maternal capillaries are also dilated. This dilatation is more marked in the fox, and is carried to a great extent in the sloth, shadowing forth the sinus system. In the human placenta essentially the same relations obtained between the relative position of the maternal and fœtal structures. The maternal bloodvessels were, indeed, dilated into large irregular sinuses, but there still existed a layer of cells between the fœtal villi and the maternal blood; the cell-layer peculiar to the villus itself having, however, disappeared. The cell-layer which persists through all the varieties of placentation, between the fœtal villus and the maternal blood, was, he held, a layer of secreting epithelium destined for the elaboration of material from the maternal blood for the nutrition of the fœtus.

In conclusion, Professor Turner pointed out that it was impossible to deduce from a knowledge of the form of placentation anything with regard either to the habitat of the animal or its mode of life. Nor did any relation obtain between the form of placentation and the duration of gestation, the size of the animal, the shape of the uterus, or the number of fœtuses produced. He pointed out also that, taken alone, the placentation of mammals did not serve as a basis of classification; for not only did differences obtain with regard to placentation among animals otherwise closely allied, but orders widely separated by other and more striking characters would have to be classed together were placental affinities alone taken into account.

The lectures were amply illustrated by diagrams, and at the close of each lecture a microscopic demonstration of the structures described was given.

CROUP AND DIPHTHERIA.

IT will be remembered that about eight months ago, at the close of a discussion upon the relations of croup and diphtheria at the Royal Medical and Chirurgical Society, it was referred to the Council to nominate a Committee to inquire into the subject. This was accordingly done, and Dr. Charles West was appointed chairman of the Committee. We have received a copy of a circular signed by Dr. West, the chairman, and Dr. Greenfield, the acting secretary of the Committee, which has been widely distributed among the fellows of the Society and others, with the object of determining the identity or non-identity of these diseases, which are defined in the circular as follows:—

"1. Diphtheria is a contagious specific disease, which is accompanied by the formation of false membrane in the pharynx, air-passages, and elsewhere.

"2. Croup is a disease accompanied by the formation of false membranes (mainly in the larynx and trachea), the origin of which is in question. No case is to be spoken of as an example of croup in which false membranes were not observed either during life or after death."

Appended to the circular is the following list of queries; and it is requested that replies to the same be forwarded as early as possible to Dr. Greenfield.

"1. Is your field of observation situated in an urban or a rural district, or partially in both?

"2. What is the nature of the locality as to climate, soil, elevation, proximity to the sea, or to a river; or as to the drainage or overcrowding of any part of your district?

"3. Have any of these conditions appeared to you to exercise an influence on the prevalence of either form of disease?

"4. At what seasons of the year does either form chiefly prevail? Do they prevail simultaneously, either sporadically or epidemically; or may epidemics of the one be distinguished from epidemics of the other?

"5. In connection with what other diseases do they prevail; either with influenza or bronchitis, on the one hand, or with angina tonsillaris, or other forms of sore-throat, measles and scarlatina, or other specific disease, on the other hand?

"6. Have you observed cases of croup setting in with catarrhal symptoms, unattended by difficulty of deglutition, or by deposit of false membrane on the fauces, to be associated with albumen in the urine or followed by paralysis?

"7. Have you seen in the same family, at the same time, cases of croup in one member and of diphtheria in another; and have you any evidence to show that membranous croup is contagious, and capable by its contagion of producing diphtheria?

"8. Taking the pathological fact of false membrane limited, or chiefly limited, to the larynx and trachea, what evidence can you adduce as to its origin, on the one hand, in the specific poison of diphtheria, and, on the other, in a definite exposure to cold, or any other cause of ordinary inflammation?

"9. If you believe the two diseases to be identical in nature, on what reasons do you chiefly rely in forming your opinion?

"10. If you have any hospital experience, or experience derived from a large school, will you be pleased to give the Society the benefit of it?"

The Committee also invite other facts bearing on the question which may not be included within the scope of the above queries. It is to be hoped that the inquiry will lead to a definite and satisfactory solution of the matter; and the report of the Committee will be looked forward to with interest by all members of the profession.

THE LANCET.

LONDON: SATURDAY, JULY 8, 1876.

THE Archbishop of Canterbury never made a more proper use of his influence than in proposing in the House of Lords the appointment of a Select Committee to inquire into the prevalence of habits of intemperance, and into the manner in which they have been affected by recent legislation and other causes; and the Government was well advised in accepting and supporting the proposal. Anything more dismal than the statement that legislation can do nothing for the abatement of the vice of drinking it is impossible to imagine. If legislation can do nothing more than it has done, so much the worse for legislation. But we do not believe this. At any rate, nothing can be more clear than the justification of the Primate in asking for an inquiry. The inquiry is called for by every kind of consideration. A great vice exists amongst us, in regard to which we want at least to know everything it is possible to find out. What is the extent of drunkenness? What are its forms? In what classes does it most obtain? Why should it, if it really does, prevail in one class more than in another? Does it do any harm? Or is it a sort of disguised virtue? Is it increasing or diminishing? What are its physical and its moral effects? At what age does it begin, and how does it begin? Are women affected by it more or less than men? Is it produced by want, or by having too much? Is it the cause or the effect of the general bad conditions of living among the poor? Is it inseparable from our climate or from our national character? Can we cease to drink deeply without ceasing to be Englishmen, and Scotchmen, and Irishmen? Or are we with growing sobriety to lose our heartiness, our humour, our power to dare and do? If anybody will read the speeches of public men on this question they will be amazed at the vagueness with which it is treated. We want, then, information from the best sources. Not from those who are committed to strong views, but from those more particularly who are seldom heard of in this controversy, but who must see most of the effects of drinking—from intelligent working men, from foremen, from employers of labour, from medical men, from clergymen emphatically "of all denominations"—for alas! no sect is free from the stigma of this vice; from men who have studied society; from city missionaries; from publicans, the oldest and most experienced that can be had, though old publicans are not numerous; from brewers; from grocers. Whether we regard this inquiry, proposed by the Archbishop, from a social, or a scientific, or a moral point of view, it will, if well conducted, be one of the most interesting inquiries which have been made, and it will be interesting in proportion to the degree in which it is searching, and in which all sorts of intemperance and fanaticism are kept out of it; for there is an intemperance of teetotalism, as well as an intemperance in the use of alcohol, and there is also another form of intemperance fashionable nowadays—an intemperance of indifference—that leaves everything to itself, especially vice, on the theory that you can do nothing with anything, and that legislation on social questions is too difficult to be undertaken.

This discovery that legislation can do nothing to abate a vice we are all heartily ashamed of—whether it is more extensive than it used to be or not—is a new one. Legislation has already done much to facilitate the creation of the vice. It has created a huge monopoly of enormous political power, and which represents the sale of an amount of drink admittedly out of all proportion to what is required for the physiological wants of the people. Legislation will be thoroughly discredited if it can do nothing else and nothing more than this. As we have already said, we have a higher opinion of the power of moderate and serious legislation. But, as a preliminary to this, we want inquiry of the most searching kind.

Lord HOUGHTON said very forcibly that he looked forward to the Committee as a means of giving some facility for obtaining the best medical opinion and advice on this subject. We entirely share Lord HOUGHTON'S expectation. Medical men know more of the ramifications of this evil than most other men, and they alone know its pathological effects, its tendency to favour disease, or rather, we should say, degeneration, its tendency to be perpetuated in the way of inheritance, and the general conditions of its origin. We trust that pathologists and physicians alike will be willing to contribute to the completeness of this great inquiry. This can easily be done without harm to private opinions on questions of a debateable character. As our readers know, we hold the opinion that the College of Physicians should ere this have made a representation to the Government on this subject, based on the experience of its members. We readily believe, however, that the College has not been prevented from doing so by any indifference. It is, perhaps, better that physicians and surgeons too should be asked for, before volunteering to give, information of which they have a responsible monopoly. But we sincerely trust that they will bear their part in this great investigation, and will cheerfully say what they know of the effect of intemperance on the life and health of the people. The profession is at present more than ever capable of defining the harm done by drink as it is used, and the good of which it is capable if used as it might be. We will, finally, only express a hope that the Committee to be chosen will be representative equally of both sides of the House, so that this question may be taken out of the region of party strife and set in a purely patriotic light.

SOME remarks we ventured to offer on the treatment of the insane in America in November last have been the occasion of a great deal of acrimonious, and not very dignified, criticism in the United States. Epithets of abuse, not the most elegant, have been heaped upon THE LANCET, the writer of the article, and an imaginary person supposed to have invoked this interference with the liberty of American alienists to lag as much behind the world as they please with tranquil impunity. We repudiate the imputations of motive and presumption, and deny the claim to immunity from censure. We have spoken frankly, as we have an undoubted right to speak on a topic of strange and serious

nterest to the profession of medicine on both sides the Atlantic, and we would remind our brethren in America that science is cosmopolitan in its progress and responsibilities. Let them believe us, however, when we assure them that the last thought in our mind was to wound tender susceptibilities unnecessarily, or to put a false construction on well-meant, though, as we contend, mistaken practice. Having said thus much, candour compels us to add that there is not a word to withdraw, or a remark to qualify, in our article of November 13th, 1875. As a matter of fact, the observations we then made were penned with a deep sense of duty—a duty from which we would rather have abstained, but that the proofs of necessity were so many and so urgent. The impressions received, and reported in this country, by medical visitors to certain of the asylums in the United States were so entirely at variance with the statements and complaints which reached us from others that it became a professional necessity to clear up the mystery.

It was therefore with no great surprise we received an energetic appeal from Dr. BUCKNILL to hear what he had to say on behalf of American asylums. We confess it occasioned some astonishment—we will not say amusement—to find so experienced a writer admitting in the postscript of his first indignant letter that "there are asylums in the States the condition of which is grievously bad"; and, lest it might be supposed these few black spots in the picture were small institutions in obscure districts, he added, "I have no hesitation in stating, from what I saw, that the large asylums in New York and Philadelphia are disgraceful to the municipal authorities of those cities," and, "I pity the patients in these asylums from my heart." Dr. BUCKNILL interposed between ourselves and the alienists of America with this apology, which we reproduce at length because it is important:—

"I have received letters and journals from several medical superintendents of asylums for the insane in the United States, calling my attention to a leader in THE LANCET of Nov. 13th last. My correspondents feel much aggrieved with that article, and have asked me to publish the truth as I have recently observed it as to the treatment of the insane in their country. I had hoped before this time to have published some notes on this interesting and important matter, but ill-health has prevented me from doing so, and I feel that no further delay should occur in my asking you to do justice to a class of highly honourable and meritorious medical men."

We at once placed our columns at Dr. BUCKNILL's disposal for the completest refutation of our charge, and, while he availed himself of the opportunity, beyond calling attention to the extraordinary inconsistency of his letter, we have abstained from remark under a fusillade of criticism in the American, and certain English, organs of the specialty, which has certainly been warm, if somewhat lacking in point, and, as we think, in wisdom. Dr. BUCKNILL erred, first, in combining business with pleasure; and, second, in attempting to utilise his casual observations on American asylums in defence of a cause, in respect to which he has confounded the good with the evil, and advanced the interests of no party in this serious controversy. How casual his observations must have been may be inferred from the following significant admissions:—"Throughout the asylum there was no patient in seclusion, but I counted no less than eight in strait-waistcoats, not one of whom appeared to me to be suffering from excitement. They were probably patients from whose freedom of motion danger was apprehended. They were sitting quietly enough on the ordinary settles, though I observed, in two or three instances, the strait-waistcoat was attached to the back of the bench." Our readers, and, we fancy, a large proportion of the best alienists in America, will agree with us that this was a scene to excite more than passing notice; but the point of the story is to come. "I must confess that I did not ask for any explanation as to the employment of this restraint, nor shall I make any remarks upon it in this place, beyond the observation that it must have been imposed *because it was thought the best mode of treatment.*" How like is this to the old rule said to have been extant at Bethlem in 1676, "That no keeper or servant should beat or ill-treat a lunatic, without he considered it absolutely necessary for the better governing of the lunatic." Of course if the keeper at Bethlem in the "mad" days thought ill-treatment necessary there was nothing more to be said about it. So reasons Dr. BUCKNILL just two hundred years afterwards. If keeping eight patients not suffering from excitement in strait-waistcoats, two or three of them attached to the back of the bench, was "thought the best mode of treatment," there was no question to be asked, although Dr. NICHOLS, the medical superintendent of the asylum where this scene was casually noted, was "the best person" to ask for explanation. Further on Dr. BUCKNILL describes what he saw at the Asylum for Female Lunatics on Blackwell's Island, under the guidance of "Dr. PARSONS, the active and devoted superintendent." The picture is sketched with the prefatory remark, "The asylum was, however, miserably overcrowded; even the attics immediately under the roof, and quite unfit for habitation, being densely crowded." Then follows the word-painting. The scene is a refractory ward, "as usual at some distance from the main building, and here I found myself in a bewildering tumult of noisy, excited women, many of whom were restrained in strait-waistcoats. I observed, however, that the free use of restraint had not been altogether efficacious in preventing such conflict as leaves behind the tell-tale marks of black eyes and bruised faces. *I regret that it did not occur to me to ask, in this or in any other American asylum, to be permitted to inspect the register of injuries and accidents.*"

It has since occurred to Dr. BUCKNILL, as it ought to have occurred to him at the time, that immunity from "injury and accident" is pleaded as the excuse for the use of restraint—in fact, that it is the only plea urged. American superintendents ply this argument as the sole weapon with which to defend their practice, and the *American Journal of Insanity* reproduces from the *Philadelphia Medical Times* an article devoted to very wild vituperation of THE LANCET, the greater part of which consists in the recountal of "injuries and accidents" inflicted on patients in English asylums, as it is alleged, in consequence of the disuse of restraint. Is what Dr. BUCKNILL has told us in the course of seven articles of a nature to influence the urgent practical question either way? We shall be curious to see what the American alienists think of the matter.

The *Journal of Insanity*, treating of our remarks in January last, said, "We are satisfied, however, that the article will receive a reply, probably in THE LANCET, from one who has visited American institutions, and who *knows* (the italics are in the original) whereof he may speak." Is the knowledge acquired likely to bolster up the happily tottering system of restraint in America? We fancy not, seeing that there is a public opinion, and a professional opinion too, in the United States, and both are at least as powerful, in the long run, there as here.

We turn from this phase of the controversy to the more practical issue with satisfaction, not because the subject is attractive—it is never agreeable to censure,—but because it has too long been delayed while this diversion has been interpolated. We waited hoping there was something to be said to the point. That hope has been disappointed, and the time has come to answer the objections and remarks urged in the United States. We propose to treat the matter as a reply to three questions. Why do we assail the treatment of the insane in America? What have we to say against the restraint system as employed in the asylums across the Atlantic? How do we meet the allegation that the non-restraint and liberty system adopted in this country is fraught with peril to patients and those around them? Our present concern is with the first of these questions. The evidence by which it is answered appears in another column under the head "Treatment of the Insane in America."

There is no space to comment upon these recitals, nor do they need remark; each carries its own moral on the face. We think there is ample ground for the assertion that the treatment of the insane in American asylums is not satisfactory—that it calls for the serious attention of medical superintendents, even from the Association formed by those specialists. Those of our readers who may refer to our remarks of Nov. 13th last will probably deem them amply justified, and those who have followed Dr. BUCKNILL'S papers will find a new interest attached to his narrative.

WE have recently recorded in our "Mirror" (for June 3rd and 10th), no fewer than six cases of cerebro-spinal meningitis. Of this number three only can with any certainty be regarded as examples of the epidemic disease, best termed "cerebro-spinal fever,"—namely, the two Oxford militiamen, and the case treated in the General Hospital at Birmingham, under the care of Dr. FOSTER. Another case, that of a man fifty-three years of age, under the care of Dr. THOMPSON at the Middlesex Hospital, would seem rather to be an instance, rare it is true, but still recognised, of intercurrent inflammation of the cerebral and spinal meninges in chronic renal disease. In the twenty-first volume of the Pathological Transactions, Dr. PAYNE relates a case of cerebro-spinal meningitis in a painter twenty-seven years of age, in whom there was subacute tubal nephritis, and although the patient was a great drinker, yet, as Dr. PAYNE remarks, the impairment of the renal function was probably the chief cause of the meningitis. In the remaining two cases we have recorded there is not sufficient evidence to disprove their dependence upon acute tuberculosis, a view of their nature which the large amount of ventricular effusion substantiates. Spinal meningitis is by no means rare in association with tubercular cerebral meningitis; and it is quite possible that some cases of so-called "cerebro-spinal fever" in children are really dependent upon tuberculosis, just as others may originate from traumatic causes. That a certain similarity should exist between the symptoms in all these cases is natural, since in all the local lesion is the same; on the other hand, it is now fully recognised that cerebro-spinal meningitis may arise in previously healthy subjects, and frequently with symptoms of high fever and blood-poisoning. On account of this, and from its occurring in epidemics, it has been classed among the specific fevers, where it holds a rank, so far as its contagiousness goes, with typhoid; and, so far as its prevalence, with malarial fevers. There are some, however, who maintain that there is not sufficient ground for placing it among the specific fevers; that it is no more a "constitutional" disease than is pneumonia; and that its epidemic character is no more evident than that of pneumonia, which it is well known does sometimes occur in epidemic form.

Experience, happily scanty in this country, somewhat larger in Ireland, and even considerable in the United States and some parts of Europe, seems, however, to justify the conclusion that a distinct place among the specific diseases must be assigned to "cerebro-spinal fever." Its occurrence in epidemics, often wide in their extent and as fatal as typhus in their results, the evidence of a general blood-poison in the extremely rapid onset of the disease, the profound symptoms, and petechial rash, these are a few of the facts which take it out of the region of merely local disorders. At the same time, it must be confessed that etiological data are few and insufficient. Various hypotheses have been put forward, but it must also be confessed that none of these hypotheses have been sufficient to account for all the facts. In those places where epidemics of cerebro-spinal meningitis have been most frequent it has been found to prevail chiefly in the cold seasons, but that, although favoured in its spread by insanitary conditions, it does not appear, like typhus, to be engendered by them; that it is not contagious, with a few rare exceptions; that it attacks the young in infinitely greater proportion than adults; and that its onset is favoured by insufficient or bad diet (under which head may be included the view propounded by Dr. RICHARDSON of its dependence upon the consumption of ergotised grain) and by physical fatigue, combined with exposure to cold and wet. Beyond these meagre facts, and in spite of the great prevalence of the disease, it does not seem that much is known more definitely concerning its etiology. The last-named causes are those which operate mostly in armies on active service, where it shows itself occasionally in an epidemic form, as occurred during the American War.

Turning now to the three cases recorded in these columns, which were probably examples of cerebro-spinal fever, the chief feature about them is the remarkable absence of any cause, even of those usually assigned. Two were young recruits in the Oxford militia, aged nineteen and twenty years respectively, but they had endured none of the fatigues nor privations incidental to active military service, nor was there any ground for believing that they partook of diseased grain. The other case, also a young man, eighteen years of age,

was believed by Dr. FOSTER to be one of an epidemic which prevailed in the midland counties during the past winter. These three cases, two of which were fatal, admit of ready comparison from the similarity in the age of the patients and their previous good health. In all the onset of the attack was marked by rigor and headache, accompanied in one case by vomiting. In Dr. FOSTER'S case a premonitory malaise of twenty-four hours' duration appears to have preceded the developed attack. In this patient the symptoms, although very striking, were not of the intensity of those in the other cases, the most marked features of his attack being pain in the head and back, photophobia, great restlessness, marked cutaneous hyperæsthesia of the limbs, but no paralysis, and no impairment of consciousness. The temperature, 104·4° Fahr. at first, fell to 101·1° on the second day of his admission, when an eruption of herpes declared itself on both lips. From that date—the fourth day of the illness—the patient began to improve. The cases of the two recruits contrast somewhat with this favourable case. In addition to restlessness, photophobia, constipation, slight albuminuria, and pyrexia, each of these cases presented paralytic symptoms; in the one case a right facial palsy, increasing in extent, and followed eventually by right-sided convulsions and complete right hemiplegia; in the other also paralytic symptoms of the right limbs and of the sixth nerves. In this patient, on the fourth day of the illness, there was an eruption of herpes on the right cheek and right side of the body. It is noteworthy that on that day there was an improvement in the symptoms, but it proved only of short duration, for the patient relapsed, and died six days afterwards. The occurrence of herpes has been frequently noted in cerebro-spinal meningitis, and generally in the milder cases; it is interesting in connexion with its neurotic origin, and its frequent appearance as a critical phenomenon in other acute diseases. In neither of these cases were there present any petechiæ, which in some epidemics have been so common a symptom as to lead to a designation of the fever, and also to its possible confusion with typhus or hæmorrhagic small-pox.

In conclusion, the occurrence of these cases does not warrant the belief that this country is likely to be visited with an epidemic of this very fatal disease. They are of interest rather as showing to how great an extent the "sporadic" cases resemble the "epidemic," so much so that it is difficult to draw the line between them. A few months ago some cases were reported by Dr. COLE, of Bath, and Staff-Surgeon NELSON, the latter giving three cases which occurred at the same time last January—one of a private in the Marines, and two being boys in a training-ship at Plymouth. We have heard also of others in the British army serving in this country. The occurrence of these instances in small groups is suggestive, and renders it imperative that note should be taken of all cases that may arise, for it is manifestly a disease upon which more light is required.

WE learn that "at the last session of the Kentucky Legislature, the odious annual tax of ten dollars per head levied on the physicians of Louisville by the city authorities was abrogated. The profession is indebted to the Louisville representatives generally, and to Senator Green Hays specially, for this act of justice."

Annotations.

"Ne quid nimis."

MEMORIAL TO THE LATE DR. PARKES.

WE are glad to hear that the attempt, to which we alluded some time since, to establish a fitting memorial of the late Dr. Parkes at University College, bids fair to be successful in every way. It has been thought that the most fitting memorial to "the Father of Hygienic Science" would be the establishment of a Museum and Laboratory of Hygiene and Sanitary Science on such a scale that these subjects may be adequately taught at the school of which he was one of the brightest ornaments.

The attempt to form an influential general committee to carry out this project has hitherto been most successful. The present Minister for War as well as the Minister for Foreign Affairs have both consented to help in the good work, and the Chancellor and the Member for the University of London have promised a similar co-operation. The committee also comprises the Duke of Westminster, who, as the greatest metropolitan householder, is certainly interested in sanitary progress; the late Home Secretary, Lord Belper, Sir James Paget, Sir William Jenner, Sir William Gull, the President of the General Medical Council, Professors Sharpey, Aitken, and De Chaumont, Mr. Hope, V.C., Dr. Guy, Dr. William Farr, and many others whose names are well known in connexion with sanitary questions. The committee will also contain the names of engineers, architects, and representatives of the great building firms of London; for it is the wish of the promoters of this scheme to forward sanitary knowledge, not only in the medical, but also in the architectural and engineering professions. Miss Florence Nightingale, although prevented from joining the committee, has subscribed to the fund, and has, we understand, written a letter expressing the greatest admiration for the character of the late Dr. Parkes, and her most cordial sympathy for the manner in which it is proposed to perpetuate his memory.

A public meeting for the furtherance of the objects above specified will be held, under the presidency of Sir William Jenner, in the Botanical Theatre of University College, on Tuesday, July 18th, at 3 P.M.

It is gratifying to find that the memory of this truly great man is likely to be worthily perpetuated, and that the memorial bids fair to assume almost a national character, as indeed it should, for Parkes's work was of a kind to benefit, not one school nor one profession, but the public at large.

Subscriptions may be forwarded to the treasurer, Mr. Erichsen, or to either of the secretaries, Dr. Gowers and Dr. Poore.

THE PLAGUE.

IT is an instructive fact, as bearing upon the question recently raised by Messrs. Gray, Dawes, and Co., of marsh fever having been mistaken for true plague, that the latest news from Bagdad, reporting the virtual cessation of plague for the year on the Tigris and Euphrates, reports also the growing prevalence of fatal marsh fever. The seasonal relations of marsh fever and of plague in Mesopotamia differ, indeed, so widely that if it were possible to confound occasional instances of the pernicious form of the malarial disease with true plague, such confusion would no longer be possible in face of an epidemic prevalence and continuance of the two diseases. Plague, in fact, in Mesopotamia, begins in the winter, develops during the spring, culminates in the early summer, and declines rapidly,

ceasing or becoming dormant with the setting in of the hottest weather. Marsh fever, on the other hand, begins after the retirement of the annual floods of the Tigris and Euphrates, which occur in March, and attains its greatest prevalence and malignancy concurrently with the hottest season, when the sun acts most powerfully on the immense tracts of sodden land and swamp left by the annual flood. Hence we learn that, as plague declines, marsh fever becomes more and more prevalent, and it is reported that this year so severe have been the attacks of marsh fever at the beginning of the hot season, that Bagdad is threatened with almost as much mischief from the malarial disease as it has received from plague.

The reported appearance of plague in Persia, to which we referred in our last number, has been confirmed by later news. The outbreak at Shuster, on the river Karun, in south-western Persia, appears to have been brief, but severe. It is still uncertain whether this outbreak was an isolated one, or whether it was one of other outbreaks in Khuzistan. The outbreak in Persian Kurdistan we now learn took place at Sakkyz, a town on the head-quarters of the river Jagatu, in the district of Mikri. It is to be inferred that this outbreak has been of some severity, from the alarm which, according to Russian journals, it has excited in the Russian provinces on the Caspian. We referred in our last number to the rumoured appearance of plague at Kerkuk, on the Ottoman side of the Turco-Persian frontier in Kurdistan, previous to the report of the disease having shown itself on the Persian side of the frontier. If this rumour be confirmed it would indicate that plague had spread through Kerkuk into the district of Mikri. The district of Mikri was the scene of an isolated outbreak of plague in 1871. The locality of the outbreak at that time was a little to the north of Sakkyz. No question then arose of importation from without, as no knowledge existed of the presence of the disease elsewhere except in this particular locality. The outbreak was one of the forerunners of the more considerable re-appearance of plague in the Levant, which has now to be confronted.

THE CONTAGIOUS DISEASES ACTS.

A COPY of the report of the Assistant Commissioner of the Metropolitan Police on the operation of these Acts for the past year is before us, and it is a document which we would commend to the consideration of all impartially-minded people. We hold, and hold firmly, that figures are strongly in favour of the view that these Acts have had a markedly beneficial effect in limiting contagion; and the fact that Dr. Balfour altered his opinions to suit his figures, instead of the reverse, carries conviction to our minds, as to his, of the accuracy and honesty of both. We are perfectly alive, however, to the objections that can be taken against figures and to there being occasionally some ground for the scepticism or incredulity with which statistical proofs are received, especially by people who cannot abide figures or facts when opposed to their own conclusions. But we should like to ask, what about the numerous cases given in this report in illustration of the successful working of the Acts in restoring young girls to their parents, and in reclaiming women who would otherwise have been utterly lost sight of until too late? Captain Harris states that the respectable inhabitants of the towns where the Acts are in operation, as likewise the police of those towns, speak of the beneficial effects of the Acts. Since they were first introduced a marked difference has taken place in respect of decorum and decent behaviour in public. And a great change has, it is alleged, taken place in public opinion; the opposition to the Acts, which was carried on principally by strangers, is gradually but surely dying out; and the aid of the police specially employed is constantly being looked for by parents and guardians for the recovery of females who have been led astray. At Sheerness, at the close of 1875, not one woman remained in hospital, neither was there one absent during the year from medical examination. At Dartmouth, where the class of disease was most rife prior to the extension of the Acts to that town in 1870, there has not been a single case of such disease during 1875; and during the last three years not one case, contracted at Dartmouth, has been placed on the sick list on board Her Majesty's ship *Britannia*.

HOMICIDAL HANDWRITING.

THE carelessness with which prescriptions are often written carries with it risks which are only neutralised by the painstaking patience of the dispenser. Now and then, the risk of a catastrophe is imminent. Chemists have to steer a cautious course between two evils. They are responsible for the non-poisonous character of the dose they send out for internal administration. If they find a suspicious dose prescribed, it is their duty to communicate with the prescriber, and ascertain that his intentions are correctly rendered by his prescription. There are, probably, few physicians who have not had occasion to thank a chemist for a timely correction of a mistake. On the other hand, the chemist has to be careful not to make an unnecessary application. Many physicians are much irritated—unreasonably—at an application from a chemist respecting a dose ordered, which may be startling to the dispenser, although it is ordinary to the prescriber. The dose of many drugs differs widely in different hands, and it is not rare for one prescriber to order ten times the quantity commonly given. The prescription gets into the hands of a chemist not used to the prescriber's doses, and the patient is alarmed and the physician annoyed by the chemist declining to compound it until he has communicated with the physician respecting the poisonous dosage. The fear of causing this annoyance sometimes induces the chemist to pass doses which at first he hesitates to dispense.

Bad handwriting intensifies tenfold the perplexities of the chemist. It is, indeed, remarkable how few mistakes result from the execrable caligraphy in which many prescriptions are written, and which sometimes compels the chemist to balance probabilities, and guess where he ought to be sure. It is part of the business of a chemist to decipher obscure handwriting, and he is reluctant to inform the prescriber that he cannot read what he has written. Were prescriptions dispensed with the carelessness with which they are often written, accidental poisoning would be an every-day occurrence, instead of being, as now, so rare that the case reported by Dr. Stevenson in the recent volume of Guy's Hospital Reports is singular in its rarity. A gentleman received from a physician a prescription for a cough as follows:—

℞ Benzole rect. ℥ij.
Ol. Menth. pip. ℥ss.
Ol. Olivæ ℥x.
Gutt. xxx. t. d. s.

He was requested to have the medicine dispensed by a particular druggist. This was done, and the cough relieved. A fac-simile of the prescription is given. The handwriting is careless; *rect.* in the first line is so written as exactly to resemble *nit.*, with the exception that the "i" is not dotted; but neither is any other "i" in the prescription. Two months afterwards the prescription was taken to be made up at another chemist's, "a large establishment," and the first ingredient was read "benzoli nit.," and nitrobenzole was given, the dispenser remarking on the largeness of the dose. During the next forty-eight hours the patient

took seven doses, in all twenty-three minims of nitro-benzole. The result was that at the end of that time he was apparently dead: limbs relaxed, pupils dilated, respiration stopped, heart acting very feebly. Under energetic treatment he recovered. The urine contained a large quantity of nitro-benzole. Several chemists to whom the prescription was shown thought that nitro-benzole had been ordered, and so did Dr. Stevenson until the chemist who originally dispensed the prescription was applied to, who knew from experience of the same prescriber's formulæ what was intended.

We cannot think that the chemist was to blame, because an assurance from the patient that he had taken medicine from the same prescription without ill effects would satisfy the scruples of the dispenser. Moreover, until this unfortunate experiment, the poisonous dose of nitro-benzole had not been ascertained. The whole blame of the accident must be attributed to the prescriber. The practice of relying on a particular chemist to interpret bad writing is very objectionable, and cannot be too strongly condemned. Every prescription should be legible at a glance.

THE HEALTH OF WEST SUSSEX.

As this district includes in its extensive area the two favourite seaside resorts of Worthing and Littlehampton, the appearance of the annual report of Dr. Kelly, the medical officer of health, is peculiarly opportune just now, when so many families are discussing where the coming vacation shall be spent. From it we find that the health of both places has been very satisfactory during the past year. In Worthing the death-rate (including visitors) was 19·3 per 1000, and in Littlehampton only 14. Many of these were aged people who died from lung affections induced by the inclement weather. The zymotic death-rate was in the small ratio of 1·6 per 1000, or one half of the general average throughout the kingdom. In Worthing there were no cases of measles, small-pox, enteric fever, or diphtheria. In Littlehampton there were three cases of diphtheria, one of which was apparently caused by an escape of sewer gas into the bedroom, but in the other two its origin could not be traced. A few cases of scarlet fever were introduced into both towns, but the disease did not spread. Dr. Kelly reiterates the protest so often urged in these columns against well-to-do people and masters of schools sending into seaside lodgings children who have been exposed to infection, or who are convalescing from zymotic disorders. By such selfish conduct the reputation of a town is seriously damaged, and new foci are formed for the disease to spread from. They should be kept at home, or sent to an isolated cottage in a lonely spot, where their clothes should also be washed and disinfected. At Worthing a special iron hospital is provided for the isolation of infectious cases, but, as in other places, its advantages are greatly lessened by the impossibility of overcoming the prejudices of the inhabitants and visitors against its use. In Worthing itself the water-supply and drainage seem to be fairly satisfactory, but in its suburbs and in Littlehampton they still require much improvement. The rural districts of Steyning, Horsham, and Petworth are all very defective in these two essentials; and although the general death-rate was low, yet scarlet fever and diphtheria were very prevalent, especially in the town of Horsham. We are pleased to learn that the attention of the authorities has been directed to these deficiencies and that steps are being taken to remedy them in most parts of the district. The simple sanitary measures of disinfection and isolation were thoroughly carried out in all cases of zymotic disease that came under Dr. Kelly's notice, and most of the pages in his report testify to their great value in checking the spread of these affections, especially among the poorer classes, who, indeed, rarely attempt to conceal their presence.

THE LATE WAR IN THE MALAY PENINSULA.

SURGEON-MAJOR W. COLLIS, of the 3rd Buffs, has presented a very interesting collection of weapons and projectiles, from the late seat of war in the Malay Peninsula, to the Museum at Netley. The weapons consist of Malay spears, swords, kreases, and knives of various forms. The spears are generally about six feet in length, with blades fifteen inches in length, of highly-tempered steel, and with very sharp points and edges. The shafts are in some instances finished with ornamented silver ferrules. The Malay sword is peculiar in being broader at the extremity, where European swords are always pointed, than at any other part of the blade. It is two inches and a quarter broad at the end, but only three-quarters of an inch broad near the handle. This difference in width is, however, counterbalanced by increased thickness of the blade as the handle is approached. A jungle-knife, sent with the weapons, but used generally for cutting jungle-paths, has the same general characters. The Malay kreases, which are formidable weapons for close combat, are well known, and the specimens sent by Dr. Collis are of the usual patterns as regards alike their blades, scabbards, and handles. They are quite peculiar to the Malays. All the weapons and knives above-mentioned were taken in action at Kota Lama, on the right bank of the Perak river, on the 4th of January last. The collection includes some iron gingall balls, musket balls, and an old flint-lock musket which was dropped by a Malay in the jungle. The lock shows that it is of English manufacture, as it is stamped with the crown, the letters G. R, and the word "Tower." A box fitted with a sliding horn lid has been cut in the butt of the fire-lock for the purpose of holding bullets. Six bullets had been left in the box. Like all the Malay bullets, they are made of tin, cast in a mould, and, apparently to make up for the lightness of their weight, or it may be with the idea of aggravating the condition of a wound caused by the bullet, small bits of stone, sometimes transparent like glass, are embedded in them. It is probable that these fragments are put into the mould before the melted tin is poured into it. It is understood that while tin is found plentifully in the Malay Peninsula, lead has not been discovered there. In addition to the weapons and projectiles just described Dr. Collis has forwarded a variety of miscellaneous articles illustrative of the habits of the Malays, which add to the interest of the collection.

COAGULATION OF THE BLOOD.

AT the close of last year, M. Glénard read a paper before the Académie des Sciences (séance Nov. 15, 1875), in which he endeavoured to show that carbonic acid gas is without influence on the act of coagulation of the blood, because the blood plasma remained liquid when the vein was plunged into that gas. At a recent séance (28 Février), MM. E Mathieu and V. Urbain maintained the opposite opinion—first, on the ground that carbonic acid gas passes but slowly through the walls of a vessel, and that either a high temperature or a long period of time would be required to obtain in this way the coagulation of the blood; and, secondly, on the ground of the following experiments:—1. A certain quantity of the blood of a dog, at the moment of its escape from the vessel, is received into the intestine of a fowl suitably prepared. It is shaken for a few minutes in order to permit the escape of the greater part of the carbonic acid gas by

exosmose. The blood is then divided into two parts, and placed in separate glasses. Through one a current of hydrogen or other neutral gas is transmitted; through the other a current of carbonic acid gas. It will be then observed that this last coagulates in the course of a few seconds, the temperature being about 100° F., whilst the former remains fluid. An analogous experiment can be made with the plasma. If the blood of the horse, at the moment of issue from the vessel, be received into tubes of glass plunged into ice, no coagulation takes place. The blood-corpuscles slowly fall to the bottom, and transparent colourless plasma may thus be obtained in considerable quantity. On passing for some time a current of air deprived of carbonic acid through such plasma diluted with four or five times its volume of water and maintained at zero, it is possible to take away the greater part of the carbonic acid gas it contains. The plasma can then be allowed to recover its ordinary temperature without coagulation occurring; but if now carbonic acid gas be transmitted through the liquid, coagulation at once sets in.

THE INCREASING FATALITY OF SMALL-POX.

SMALL-POX has now for many weeks been fatally prevalent in Manchester and Salford, and in Liverpool. Since the beginning of the year, the Registrar-General tells us in his last Weekly Return, 379 fatal cases have occurred in Manchester and Salford, and 111 have been recorded in Liverpool. There can be no doubt that the number of cases have been more than three times as numerous. Thus it may be safely assumed that in these Lancashire towns alone at least 1500 persons have recently suffered from the disease. These figures undeniably prove the existence of a large number of unvaccinated or imperfectly vaccinated persons in these towns. In London the deaths from small-pox since the beginning of the year have not exceeded 33, but the number of admissions to the Stockwell Small-pox Hospital has recently increased so rapidly that the Metropolitan Asylum Board have reopened their other small-pox hospital at Homerton, and are thus prepared to receive at the two hospitals 204 small-pox patients. On Saturday, the 1st inst., the two hospitals had 76 of the 204 beds occupied by small-pox patients—a higher number than at any time since the subsidence of the severe epidemic of 1871-72. Since the beginning of the year, 168 small-pox patients have been admitted into these Metropolitan Asylum hospitals, of whom 134 were vaccinated and 34 unvaccinated; 83 of these patients were admitted during the four weeks ending July 1st. Up to the end of June 21 patients had died, and 71 had been discharged as recovered. The deaths among the vaccinated were equal to 13·5 per cent. of the completed cases, and among the unvaccinated to 61·1 per cent. It should also be borne in mind that among those patients classed as vaccinated a large proportion bear very indifferent scars, which prove inefficient protection from the disease, although in such persons the severity of the malady is generally modified.

BILE AS A CHEMICAL REAGENT.

AT a recent sitting of the Medical Academy of Rome, Dr. Ratti, *apropos* of the fact that bile, slightly acidulated, has the property of precipitating the poisonous alkaloids and glucosides, as well as albumen, attributes the fact to the tauro-cholic acid, liberated by the acids, and existing in the bile—not to all the constituents of the bile taken collectively as Professor Moriggia seemed to hold. Dr. Ratti's conclusions are these: 1. That the tauro-cholic acid may be used in aqueous or alcoholic solution in examining liquids containing alkaloids, glucosides, &c. 2. That this acid which may be had, extemporaneously, from tauro-cholate of sodium, is better as a reagent than acidulated bile, in which the gluco-cholic acid may conduce to error by its precipitation. 3. That the tauro-cholic acid may be enumerated among the general reagents of the alkaloids and glucosides, and is the best reagent for the detection of albumen. 4. That this latter property explains clearly why the bile arrests stomachic digestion. 5. That the substances which form insoluble compounds with the albuminoids being regarded as antiseptics, the antiseptic virtue of the acidulated bile to which Professor Moriggia called attention may readily be understood. Professor Moriggia, at the conclusion of the sitting, informed the Academy that he would lay before it the result of fresh investigations.

INFECTIOUS DISEASES AT THE SEASIDE.

Now, when we are all beginning to think of "going to the sea," it is very gratifying to notice the vigilance of Brighton in regard to the introduction of cases of infectious disease. It is a lamentable thing to go to the seaside in search of higher health and to contract dangerous or deadly disease, which is too common an occurrence. This calamity can only be avoided by energy on the part of the sanitary authorities of seaside places in prosecuting persons who let infected premises, cabmen who do not disinfect tainted cabs, and all who are parties to the exposure of persons affected with infectious disease. The Town Council of Brighton, after a very able speech by Dr. Stephens, has confirmed the sanitary committee in regard to its proceeding taken against a lady at Croydon, under the 126th section of the Public Health Act, 1876, for directing the removal of a young girl from Croydon to Brighton, on the 18th of May, while suffering from an infectious or contagious disease. Let us hope that the example of Brighton will be extensively followed.

FACULTY OF MEDICINE OF PARIS.

AN event of some importance has just taken place at this Faculty—namely, the rejection of the proposal for the re-establishment of competition for professors' chairs. Formerly these appointments were warmly and publicly disputed, and most of the men who have shed lustre on the Faculty owed their chairs to hotly-contested competitions. Distrustful governments, however, especially that of the Third Napoleon, forbade this mode of election, so as to keep liberal-minded men from gaining power with the students, and competition was abolished. Several times since that period attempts have been made to return to the concours, but always without success. A few days ago the professors were convened and asked to deliberate on the matter. Out of twenty-two professors present, ten voted for the re-establishment and twelve against, so that the motion was again lost. This is to be regretted, as there can be no mode of election fairer than competition. Six professors were unable to attend; this was unfortunate, for it is ascertained that four of them would have voted for resuming the concours.

THE LIVERPOOL HEALTH OFFICER.

AT a recent meeting of the Health Committee of the Liverpool Town Council it was resolved that the Council be recommended to take the necessary steps for the appointment of a deputy medical officer of health, at a salary of £800, of which £700 is to be in respect of the duties of officer of health, and £100 for those of the port sanitary officer. The appointment is to be made subject to the approval of the Local Government Board, and to be held during the pleasure of the Council. The chairman of the committee stated that an arrangement had been made with Dr. Trench by which his salary would be reduced from

£1300 to £500 on the appointment of this deputy medical officer of health for the borough and port of Liverpool, Dr. Trench acting as a consultant.

The retirement of Dr. Trench from the more active duties of medical officer of health is to be regarded as a public loss. All who knew the extent of his labours in Liverpool, and the courage, energy, and ability he brought to his work, are agreed as to Dr. Trench's character as a public servant, and we believe that he is no less respected for his private worth. We sincerely trust, if Dr. Trench has been induced to take this step on the score of health, that his powers may be soon restored sufficiently, at any rate, for him to assist in carrying on the good work to which he has so long devoted his best energies.

TYPHOID FEVER IN HASTINGS.

WE have received a protest, signed by most of the leading medical practitioners of Hastings, denying the accuracy of a statement which had appeared in a contemporary in reference to some recent cases of typhoid fever in the town. We regret to find that the disclaimer is not in all respects satisfactory. It is admitted that a certain number of cases have occurred in the two towns within the last few months, and this number is somewhat vaguely stated as "perhaps half a dozen," and the protest further says that the gentlemen signing are at present unaware of the existence of a single case of fever in either Hastings or St. Leonard's. Now we are unable to see why more accurate information should not have been obtained. If each of the gentlemen who signed the statement had given a list of the cases which had occurred in his own practice all doubt as to the number would have been removed. It is moreover impossible to avoid asking why even half a dozen cases of typhoid should have occurred in so healthy a town. What has been the cause of them? Is the house-drainage defective, or is the water-supply in default? These questions can and should be carefully considered, and, until we receive answers to them, we must continue to hold as doubtful the assertions of the town authorities as to the perfect innocence of the water-supply.

Another remark must here be made. Suppose these typhoid cases, or any one of them, had occurred in the Old Roar, Shornden, or Clive valleys, how great then would have been the risk of contamination to the water-supply, how terrible the epidemic which might have followed.

ANATOMY OF THE EAR.

POLITZER (*Archiv f. Ohrenheilk*, B. ix., p. 158) gives the results of the examinations of the stapedius muscle and of the styloid process. In newly-born children the stapedius muscle and facial nerve are in contact below, and even in adults the osseous wall between the two is seldom complete. In longitudinal sections the stapedius muscle is pyriform, in transverse sections prismatic, with rounded borders. Its action is that of a relaxor of the membrana tympani, and it is therefore an antagonist of the tensor tympani. As regards the styloid process, Politzer finds that it results from the ossification of a cartilaginous rod originally isolable; the upper end of this may be traced beyond its apparent basis along the posterior wall of the tympanic cavity, from which it is separated by a thin bony lamella as far as to the eminentia stapedii. In new-born children the styloid process presents a club-like enlargement at its upper part, and terminates below in one or several cone-like rods. In adults it usually coalesces with the adjoining bones above by continuous ossification, but sometimes remains separate or is segmented. It generally forms cancellous texture with or without a central canal.

THE LIMITATION OF THE SPREAD OF INFECTIOUS DISEASE.

AN excellent proposal has been started in Liverpool—viz., that children attending the School Board schools should be subjected to medical inspection, with the view of preventing the spread of infectious disease by the removal and isolation of those who may present themselves with such disorders. It would seem that this proposal for the medical examination of schools is being warmly taken up by the medical profession of Liverpool. The principle is a sound one, and obviously capable of being extended far beyond the limits of School Board schools, and we think that it might be made the basis of some organised and systematic plan of action.

EQUINE RHEUMATIC ENDOCARDITIS.

THE coincidence of acute rheumatism and endocarditis has rarely been observed in the lower animals. M. Trasbot, Professor at the Veterinary School at Alfort, has lately exhibited morbid specimens from a filly, aged seventeen years, which showed chronic endocarditis with vegetations on and incompetence of the mitral valve, and also of the pulmonary valves, and great dilatation, vegetation upon, and incompetence of the tricuspid valves. Previous to the appearance of the cardiac troubles the animal had suffered from an arthritis, which was regarded as rheumatic in character.

SIR WILLIAM FERGUSSON AND DR. FARRE.

WE have the pleasure to report that Sir William Fergusson continues to make good progress and to regain strength. He now walks down stairs, and, weather permitting, he will be taking a daily drive. We are also glad to state that Dr. Farre is much improved.

A SINGULAR case of poisoning is reported in a Sheffield paper. A labouring man living at Worksop swallowed about seventy-two grains of pure strychnia in mistake for nitre, small quantities of which he was in the habit of taking at bedtime. At the inquest held subsequently it appeared that the bottle from which the poison was taken still contained two drachms of strychnia. The coroner in summing up said: "The case was one of the simplest nature; the man had taken a most deadly poison out of the bottle produced. It was evidently given (by the wife) inadvertently or purposely." The jury returned the following verdict: "Died from an *overdose* of strychnia inadvertently administered in mistake for saltpetre." We cannot but regard the inquiry as incomplete, and the verdict as unsatisfactory. Did it never occur to the coroner or jury that it would be well to ascertain if possible how such a large quantity of a deadly poison, nearly half an ounce, came to be in the possession of a working man. When it is considered that half a grain of strychnia has more than once proved fatal to an adult, the word *overdose* seems very incongruous.

MEDICAL visitors to the Great Exhibition at Philadelphia will have their attention arrested by a model hospital which has been erected by the Army Medical Department in the neighbourhood of the Government building. It is replete with every imaginable appliance requisite for the treatment of the wounded in battle, with miniatures of steamboats and railroad trains arranged for the transportation of sick and wounded, and models of the barrack hospitals improvised during the American war. On the wall are hung photographs of the remarkable cases of recovery from hip amputations, &c., reported by Dr. Otis.

THE medical committee of the Manchester Royal Infirmary, at a recent special consultation, fully concurred in the suggestions made on the 22nd June by Mr. Netten Radcliffe with reference to the steps desirable to be taken in consequence of the present sanitary condition of that institution. At a subsequent meeting of the treasurers and the weekly board it was decided that temporary accommodation should be immediately provided in the grounds of the infirmary, to permit the removal and isolation of all cases of erysipelas or other traumatic infection. The remainder of Mr. Netten Radcliffe's suggestions, which relate to the necessity for immediate attention to the state of the drains, which are said to be not only excessively foul but radically bad in design and construction, were referred to the sanitary committee. It will be remembered that Mr. Netten Radcliffe strongly urged that during the cleansing and reconstruction of the drains only so much of the infirmary should be retained in use as is absolutely necessary for casualties.

IN the *Indian Medical Gazette*, Mr. Robert Harvey, M.B., continues to report on the medico-legal returns received from the Civil surgeons in the Bombay Presidency. Many of the cases of poisoning described are interesting and curious. In a section on criminal abortion we gather that this practice is exceedingly common in India, where the prohibition of widow-marriage leads to much immorality, the discovery of which involves social ostracism and exclusion from caste—a punishment so severe that all means are taken to avoid detection, even although death is risked. There are numerous professed abortionists among the natives, regarding whose *modus operandi* English surgeons are much in the dark. Mr. Harvey therefore urges a thorough investigation into the various means used by these persons. We cannot help observing here on the admirable manner in which our contemporary is conducted, while there is gratifying evidence that the profession in India are diligent in their search after new truths.

THE third annual report of the health of Sheffield has been issued by Dr. Griffiths. We find that the death-rate of the town during the year 1875 was 24·8 per 1000,—an improvement on the mortality returns of the previous year. Among the causes which contribute to maintain sickness in Sheffield, Dr. Griffiths places prominently its rivers, which are made the receptacles of sewage and refuse of every kind, an imperfect system of sewers, and the keeping of animals in close proximity to dwelling-houses. The condition of the canal boats and their population, as described by Dr. Griffiths, would seem to require early legislative interference. The large number of 451 uncertified deaths were registered during the year, 54 of which were due to premature birth, and in several instances there was reason to suspect infanticide. A comparison of Sheffield with the metropolis, in respect of uncertified deaths, is very unfavourable to the former. There is evidence, however, that the evil is yearly diminishing.

As emigration to Queensland appears to be going on somewhat briskly this year, a few words about one of the healthiest of our colonies (taken from the fifteenth annual report of the Registrar-General for Queensland) will not be out of place. A high marriage-rate and a high birth-rate may be generally considered as unfailing indications of prosperity, and we find both these conditions fulfilled in Queensland. The birth-rate especially is very high, considerably in excess of that prevailing in the United Kingdom. The death-rate is also low, in spite of what are acknowledged to be very grave sanitary evils and defects in the principal towns of the colony.

THE Guardians of the West Derby Union are proposing to erect a new hospital for the reception of all cases of infectious diseases "further out in the country" than the hospital for sick poor in Mill-road, which would then only be occupied by the aged paupers and children. Such a step requires very serious consideration, as it appears essential that a hospital for sick poor should, above all things, be accessible; whereas a workhouse for aged paupers and children might with infinite advantage be erected in a rural situation. The removal of hospitals from town centres is frequently urged more out of consideration for the healthy than the sick, and arises from a mistaken notion that the neighbourhood of a hospital must be pestilential.

A REPORT of the health of South Shields for the year 1875, by Mr. John Spear, has reached us. For many years the mortality of the town has been in excess of the average of English large towns, chiefly owing to the prevalence and fatality of zymotic diseases, but now South Shields will bear favourable comparison with other towns in point of death-rate. Several localised outbreaks of enteric fever, however, occurred, which on investigation were found to depend on two causes: a surface and subsoil composed of loose and impure material, and a defective system of refuse removal. The waste of infant life would appear to be great, and Mr. Spear directs especial attention to the evil and its causes.

OFFICERS of the Army Medical Department will hear with much regret of the death of Surgeon-Major Fleming, at Brighton, where he had resided for some time since his retirement from the service in 1869. Surgeon-Major Fleming entered the army in 1846, and served in Ceylon, India, and at home. He was, before his retirement from the service, the surgeon of the 4th Dragoon Guards, and was greatly and deservedly respected. Surgeon-Major Fleming was devoted to the service; he was a generous-minded, well-read man. Some years ago he brought out a small illustrated work on the different war-medals of this country, of which he had a rare and very interesting collection.

IN answer to a question in the House of Commons touching the case of a man against whom proceedings had been authorised by the guardians of the Walsall Union after six previous convictions, for non-compliance with the Vaccination Act, Mr. Sclater-Booth said it seemed unfortunate that repeated prosecutions occurred in so many cases, and the Local Government Board had suggested to the guardians that, after having procured two convictions under the Act, they should consider whether, under the circumstances, they were likely by repeated prosecutions to ensure the vaccination of the child. If not, it was desirable that further proceedings should be stayed. We fear the guardians will not easily find a way out of their difficulty.

MR. W. FOSTER, F.C.S., Lecturer on Chemistry at Middlesex Hospital, has recently exposed the true quality of the much-esteemed water derived from the pump in New-inn. It is stated that the water is clear, sparkling, and had the reputation of being also very pure. The consequence was that streams of people were in the habit of resorting to it with jugs, cans, and water-bottles. Analysis shows that the water contains five times as much solid impurity as fairly good water, and a largely excessive proportion of ammoniacal salts. It is clear, as Mr. Foster says, that the only proper course to pursue is to close this pump, which furnishes such highly-reputed but such unwholesome water.

THE Sanitary Commissioner of the Punjab reports that cholera prevails epidemically in some of the provinces adjoining the Punjab. In view of its possible invasion of the Punjab itself, the Commissioner urges municipal authorities to lose no time in rectifying sanitary defects in their respective towns. The filthy habits and customs of the natives, however, militate strongly against the perfection of sanitary measures. How is epidemic disease to be stamped out among a people who bathe and wash their dirty clothes in wells from which the potable water is drawn?

THE Bravo case appears to hang fire a little. There are preliminary difficulties not easy to overcome. It is said that important witnesses have left the service of Mrs. Bravo. Counsel do not appear to think the inquiry can possibly be opened for some days. Meanwhile, Mr. Carter has obtained the authority of the Home Secretary to exhume the body. An application for a legal assessor to the coroner has not been granted, nor has it been rejected. The Home Office, as might have been expected, repudiates any power to interfere in the matter. The coroner should consult the statute book.

AN official inspection was recently made of the Leavesden Asylum, where there are over 2000 imbecile paupers. While the visitors were in the female side of the building, Dr. Shaw, the medical superintendent, expressed his belief that quite a third of the inmates were persons who had been reduced to imbecility through the effects of intemperance. Those who know anything of the class from which these patients are recruited will feel that Dr. Shaw was moderate in his computation.

AN admirable "portrait in oil" of Sir William Fergusson, Bart., appears in this week's *World*. The delineation is faithful and appreciative, and will gratify the numerous friends of the eminent surgeon. Our contemporary says there is "no one who does not hope that Sir William Fergusson may yet have many years' enjoyment of the rewards which have waited on his professional and social career." The whole profession will join in the wish expressed.

"TREATMENT OF THE INSANE IN AMERICA."

IT is useless to go back to the evidence before us when we wrote the article which has excited the discussion on this subject. We shall simply, as *specimens* of the cases reported, reproduce the following; and, lest our language should give offence, we will quote from American sources exclusively:—

"Attention is called afresh to the subject of the abuses which frequently mark the management of our lunatic asylums by an investigation, now in progress, concerning the alleged brutal treatment of Nelson Magee while he was a patient at the King's County Asylum. It appears that Mr. Magee had suffered from sunstroke, and was admitted to the asylum for a second time last June, having incurred temporary mental derangement by overwork. He is between thirty and thirty-five years of age, of gentlemanly bearing, and gave his evidence in a clear, straightforward manner that carried conviction with it. His story is one of horrible abuse throughout. He was frequently beaten and bruised by the nurses, and was once kept tightly laced in a strait-jacket for eight days. We give a single extract from his testimony:—'I was then taken into a strong room at the back of the hall; George (one of the keepers) began to take off my clothes; he held up a strait-jacket in front of me and told me to put it on; I reached out my hand and put it on; as soon as my hands were in it and he got it laced he said, "You ——," and struck me on the neck; a keeper named Frank Loselle entered and kicked me in the stomach; George then struck me again in the lower jaw; and they tied my hands behind me, drawing them tightly by jamming his knee heavily three times in the small of my back; my back is still sore; I said, "Have you no mercy?" the only reply he made was to strike me again in the neck; I bled quite freely from the forehead and mouth; the scars of some of the blows are still over my left eye; George then said, "Go into the wash-room now," and added, "you won't see your dirty —— of a wife again to-day; what do you suppose we care for your —— black —— of a wife here, anyhow." Here the witness described additional abuse by the keeper, the details of which are unfit for publication. He then resumed: While in the wash-room he told me to hold my head under a faucet, and while in that position, and bound so tight in the strait-jacket that I could hardly move or breathe, he struck me three heavy blows on the neck; I said, "Oh! George, have mercy!" he answered, "You don't need mercy, you Irish —— —— ——;" he then told me to go into the back hall; Henry unlocked the door and I entered the room; I nodded to a patient named Nestor, who was lying down on a settee at the time, and who bowed to me on my entrance; for this he was struck by Henry; Henry came to the door about an hour afterward and asked me how I felt; I told him that I was laced so tight I could not breathe; he said in his broken English, "Dat ish your punishment; I will keep you here eight days;" after supper he repeated the question and I returned the same answer; he advanced toward me as if to strike me and said, "I don't want you to breathe, you Irish —— —— ——; I'll murder you before you get out;" I got no supper that night; although it was a warm night in July, the window was closed tight, and I suffered greatly from the heat; I tried to lie down, but could not with any comfort; I had no sleep that night; I had to walk the floor most of the time; for half an hour I called for relief, but no one came; George unlocked my door in the morning, and he and Henry unloosed my arms to some extent, and George said, "Work your arms;" there was a welt on my body several inches wide, and it smarted and pained me; the keepers noticed it, and spoke of it among themselves; my arms were so stiff I could not move them; George then tied me up again, but not so tightly as before.' This sort of brutality was continued for several days, until, finally, Magee was able to interest one of the physicians in his behalf, and he was released from his bonds. Mr. Magee gave equally explicit testimony as to the treatment of other patients. In one case, a man was beaten by the two nurses because he complained to his wife that his extra food, which was furnished to him by a masonic lodge, did not reach him, but was appropriated by the nurses. Another patient was struck several times for not falling into line when the patients were marched to sweep the hall. Another patient was put into confinement for eight days with only one meal a day part of the time. When he was called to change his clothing he put out his hands for the straps as obediently as a child."

The following is from the official report of the State Commissioners in Lunacy presented to the Legislature, Jan. 6th, 1876:—

"The investigation of this case, undertaken by the Commissioners [that is, the managers of the asylum—ED. L.], resulted in the discharge of two attendants.....If resignation and flight are to be taken as any evidence of guilt, then the most guilty of the three inculpated attendants was the one who escaped. Instead of trying him formally, as they should have done, and convicting him of contumacy, so as to spread the fact upon their minutes; or, again, instead of making complaint before a magistrate, and purging themselves of all negligence and misconduct in the premises, they did neither, but allowed him to *resign*, and thus escape with an unblemished character. The two remaining attendants they convicted and discharged, as they say, to silence public clamour. In doing this, they made no distinction between them in degrees of guilt. But soon after they secretly re-appointed one of them to duties in the asylum.....it is in evidence that up to the occurrence of the Magee case, patients were allowed to be indiscriminately restrained by attendants at their pleasure—to be put in camisoles, and confined in rooms where they were unseen and unvisited by any physician for sometimes forty-eight hours. I do not say that the superintendent knew of these things, or in-

tended them, but he should have established and maintained such a rule of government in the asylum as to have rendered their occurrence impossible."

The following is from the *New York Herald*:—

"Boston, March 20, 1876.

"It seems almost incredible in this enlightened age, and in the boasted philanthropic and moral atmosphere of Massachusetts, that there should be permitted such a systematic series of cruelties, vices, and crimes as have recently been developed in connexion with the management of the Almshouse at Tewksbury. The exposures have been secured mainly through the efforts of Frank B. Sanborn, Chairman of the Board of State Charities, and the startling results of the investigation were made known by Mr. Sanborn to-day in an address which he delivered before an examining committee of the Legislature.

"Before proceeding to give the gist of Mr. Sanborn's account of the sickening and revolting circumstances connected with its administration, I will explain that the institution is the largest of its kind in New England, containing on an average upwards of a thousand inmates. Many of these are insane, and very many more are afflicted with various diseases in various stages; and so reckless, indifferent, or incompetent has been the management during the last few years that the assured death of an inmate upon entering has been the rule rather than the exception. During the year 1875 the average of deaths was one in nine, or 235 of 2849 who were admitted to the institution, and this in the absence of any contagious diseases.

"Mr. Sanborn, in his argument, charged the imprisonment of insane women for refusing to work, and the allegation was admitted by the officers in charge of the institution. 'The shocking circumstances,' said Mr. Sanborn, 'were detailed to your committee until you voted to hear no more of them. It is certain that five women were so imprisoned in the autumn of 1874, two of them for more than eight weeks; that they were allowed neither chair nor table nor bed in the day time; that they were waited upon wholly by men; that their cells were underground, dark and unwholesome; that their food was bread and water; that the three inspectors of the Almshouse were individually and collectively ignorant of this abuse for at least nine weeks; that the bye-laws of the Almshouse were both neglected and violated in this particular; and that two of the four women who remained at Tewksbury after this imprisonment died within six months from their release out of these cells. To all this no denial was offered; but it was testified in defence that the superintendent (who alone has authority to imprison inmates) was also ignorant of what was going on; that the physicians who introduced the practice did so medicinally, and with good intentions; and that one of the five women had somehow recovered her sanity—perhaps in her dungeon. It also appeared that, although the Board of Charities released these women on the 3rd of December, 1874, and formally censured their imprisonment by a vote communicated to the inspectors early in January, 1875, these inspectors did not discharge or punish the culpable physician, but received from him on the 25th of March, 1875, a long written defence of his course, signed both by the physician and the superintendent, and allowed him to resign about the 1st of May, without putting on record so much as a vote of censure concerning him. From all that has appeared it would seem that the superintendent and at least one of the inspectors do not yet see much harm in what was then done, nor did they know, until these hearings disclosed the fact, that two of the women so imprisoned for the benefit of their health died more than nine months ago.'"

Lest there should be any doubt about the nature of this institution, we quote the following from the official Report of the Board of State Charities of Massachusetts:—"The Tewksbury State Almshouse.....originally built as a receptacle for the sane poor who were not specially subjects for a hospital, has now become, in course of years, and by the successive modifications of our laws and policy, a hospital for the sane and an asylum for the insane, rather than an almshouse." After explaining that the appointment of a special physician for the insane patients here in 1874 was not a success, the Board relates the case, and cites the vote of the Board condemning the practice of confining insane persons for the purpose of making them work. As the *New York Herald* alleges, the physician who thus treated the insane was not dismissed. He subsequently resigned, but this seems to have been an accident.

We take the following from the *Sun* of March 30th:—

"Washington, March 28th.

"In the investigation into the management and condition of the United States Insane Asylum in this district, Otis W. Marsh, an inmate, testified that the patients were frequently crowded in rooms where they fought among themselves. Henry Miller, one of the bakers, said the favourite contractors furnished musty flour, 100 barrels at a time, and that it tasted so of garlic that they had to work it up into ginger cakes and ginger snaps, so that the mustiness could not be tasted. He also testified to seeing patients inhumanly treated and whipped. Henry B. Tyler, formerly an inmate, testified to thirty patients being crowded into a room, and that they were filled with vermin and no effort made to clean them; that the meat given them was bad, the pork and bacon the roughest kind and badly cooked, and that Dr. Nichols did not properly attend to his duties. Arthur D. Smith testified that he was an attendant of White Ash ward two weeks in August, 1875. One of the patients got scared at the table and ran into a closet. He was taken out and strapped to the floor and badly kicked and beaten by John Hetterman. There was a mark on his back as large as a saucer. The injured man was transferred to Garfield ward and died the next night. Hetterman is still there. He would scare the patients when they sat long at the table, and sometimes knock them over. Dr. Nichols ordered three men to be tied in the water-closets down to the iron pipes. These men were not so crazy but that they could have been let loose in the hallway. Witness saw Hetterman throw Adams down and kick him three times in the back. The meat was generally tainted; the coffee and butter were generally good. Dr. Nichols came around in the wards just seven times in six months."

The next extract is from a special despatch to the *World*, dated "Washington, April 17.—The testimony before the Committee on Expenditures in the Interior Department to-day disclosed a condition of affairs at the Government Lunatic Asylum in this District more horrible than can easily be believed. The principal witness was Geo. M. Daw, at one time a soldier in the regular army and afterwards an assistant at the asylum. His testimony to-day fairly curdled the blood of those who heard it; it was a tale of such brutal treatment and neglect. He swore positively that many patients there had been thrown into filthy cells with nothing but a bundle of straw to lie upon. Every morning a servant would come round with a wheelbarrow to remove the excrement, but the straw was merely shaken up like the straw in a stable and left in the cell. The patient's only bed was left until it became so fetid that it had to be carted away, when a new bundle was brought in and the process repeated. The most atrocious case cited was that of a certain General Loomis, who had been an officer in the regular army. When brought to the asylum he was old and perfectly helpless; yet, old and helpless as he was, he was left to wallow in his filth on the floor, until when the witness saw him, as he said, the bones of the poor man's shoulder-blades, knees and elbows had actually worn through the flesh, and he was literally devoured with vermin. This patient finally died there. The witness also understood that General Howard came once to see General Loomis, but he was told that he was asleep. Mrs. Murphy, another witness, testified that her husband was sent there at the instance of a certain benevolent society in this city. She called often to see him; always found him covered with vermin, and often covered with severe bruises, which her husband said were caused by abuse. Finally he died there suddenly one Wednesday. The preceding Saturday she saw him and he was well, and when they brought the body to her the face was covered with bruises which were not there Saturday. She believed that his death was hastened by violence. The committee are determined to probe the matter to the bottom."

Another report of the same inquiry, continued to the 20th April, gives the following story:—

"Washington, April 20th.

"The Committee on Expenditures in the Interior Department examined this morning a lady residing in this city of

the highest character, whose name is withheld at her personal request. She testified that her son became insane on the night President Lincoln was assassinated. He was sitting in an orchestra chair when Booth jumped out of the box upon the stage, and being acquainted with the assassin he called him by name. The next morning he exhibited symptoms of emotional insanity, and suffered from complete nervous prostration. The symptoms continuing, the lady was advised to place her son in charge of Dr. Nichols. Her son exhibited no signs of violence whatever, and was a mere boy, being about twelve years of age. She went to the asylum, and one of the physicians showed her a very pleasant room, which was to be fitted up for her son's occupancy. Accordingly she fitted him out with a complete outfit of wearing apparel, and he was taken to the asylum. Day after day she visited the institution, often being compelled to wait an hour before she was admitted to the reception-room, never was permitted to see the superintendent, Dr. Nichols, and was uniformly refused permission to see her son, although he was a pay patient. Often she remained from morning until night in the reception-room, unable to see even an attending physician, and seeing no one but a servant who was washing up the floors. If fortunate enough to secure an interview with a physician, she was curtly told that they could not be bothered. This continued for about eight weeks, when, finding herself unable to see her son or learn about his condition, she determined to remove him. Accordingly, in company with two prominent Government officials, she went to the asylum, and absolutely compelled the attending physician to permit her to see her boy. She found him in one of the basement strong rooms. The room was dark, damp, and without fire. Her boy was grovelling in a corner of the cell, with no clothing on him save the fragments of a pair of army pantaloons and the half of a sleeveless shirt. He at once recognised her, although so emaciated she did not know him, and running to her he exclaimed, 'Oh, ma! ma! do take me away from this dreadful place!' She covered him with her shawl, and led him to the reception-room. Having brought some clothing with her, the boy went behind the door and removed the piece of a shirt he had on, and when the mother picked it up she found it literally covered with vermin. She became very much excited, cried and lamented, and in her excitement struck Dr. Eastman with her parasol. The noise and confusion attracted Dr. Nichols, who entered the room at this moment and demanded to know 'What all this noise was about?' This was the first time the poor anguished mother had seen him since the day of her son's incarceration, and picking up the vermin-littered shirt she flung it in his face, exclaiming, 'I want to cover you with the same filth and vermin that my child has been covered with.' She examined her boy's back, and found the flesh sore from being eaten into by lice."

THE CAMBRIDGE UNIVERSITY CERTIFICATE IN STATE MEDICINE.

IT is announced that an examination in State Medicine will be held at Cambridge in October next, beginning on the 3rd of the month. We have made the following brief extract from the announcement, but gentlemen requiring further information should communicate with Professor Liveing:—"Any person whose name is on the Medical Register may present himself for this examination provided he is twenty-four years of age. The examination will be in two parts. Part I. will comprise: Physics and Chemistry; the Principles of Chemistry and Methods of Analysis, with especial reference to Analysis of Air and Water; Application of the Microscope; the Laws of Heat and the Principles of Pneumatics, Hydrostatics and Hydraulics, with especial reference to Ventilation, Water Supply, Drainage, Construction of Dwellings, Disposal of Sewage and Refuse, and Sanitary Engineering in general. Part II. will comprise: Laws of the Realm relating to Public Health; Sanitary Statistics; Origin, Propagation, Pathology and Prevention of Epidemic and Infectious Diseases; Effects of Overcrowding, Vitiated Air, Impure Water, and Bad or Insufficient Food; Unhealthy Occupations, and the Diseases to which they give rise; Water Supply and Drainage in reference to Health; Nuisances Injurious to Health; Distribution of Diseases within the United Kingdom, and Effects of Soil, Season and Climate."

HARVEY TERCENTENARY MEMORIAL.

THE donations received and promised now amount to nearly £800. Further sums may be paid to the account of the "Harvey Tercentenary Memorial" at the Western Branch of the Bank of England, Burlington-gardens, W., or at the National Provincial Bank, Folkestone, or to Sir G. Burrows, Bart., or Prescott Hewett, Esq., or the Hon. Secretaries, Mr. Eastes, 5, Albion-place, Hyde-park-square, W., and Mr. Harrison, town clerk, Folkestone.

Correspondence.

"Audi alteram partem."

THE CONJOINT SCHEME.

To the Editor of THE LANCET.

SIR,—Will you allow me to reply, very briefly, to your remarks on the amendment relative to the Conjoint Scheme which I lately moved at the meeting of Convocation at the University of London? One objection, raised not only by THE LANCET but by many of my friends also, is that the amendment was moved too late in the day, and that by adopting it the University would stultify itself by receding from a position which it had previously taken up.

This is true, no doubt; but although no man may plead ignorance of the law, it is nevertheless a fact that the great majority of the members of the University were ignorant of the stringent terms of the Act of Parliament by which we shall be bound if the University participate in the scheme.

If the University merely lost its *licensing* power I should have no great objection to the scheme, since our medical degrees would then be on the same footing as the degrees in law; but to *compel* all graduates to be previously examined by a body over which (as Mr. Bompas so forcibly said) we shall practically have no control seems to me so wrong in principle (however expedient it may or may not be) that I cannot understand how it is that there has not hitherto been any opposition on this ground.

It may be true, as Dr. Sibson said, that the fee of five guineas is a trivial matter, and that the examination will be merely child's play, if not a pleasure, to our candidates; and Mr. Morris was undoubtedly right in saying that our candidates have hitherto for the most part submitted voluntarily to licensing examinations. But to these gentlemen I would reply that voluntary action and compulsion are two different things, and that it is equally wrong in principle to *compel* our candidates to undergo either pleasure or pain if inflicted to no purpose, and by an independent body. Again, it must not be forgotten that our graduates have submitted voluntarily to previous examinations *for the sake of the licence*, which enabled them to hold hospital appointments whilst working for their degrees. *The five guinea examination of the Board confers no such licence, but merely enables the candidate to proceed to his degree in his own university.* The licence of the Conjoint Board will cost *thirty guineas*, which to a student waiting for his degree is no light sum.

The Conjoint Scheme, if it become law, will, I believe, open the door to the pernicious system of *ad eundem* degrees, and the examination of the Conjoint Board will be a salve to the conscience of any public body wishing to trade in ornamental letters. The action of the University of Durham is, to say the least, ominous, and it is possible that Scotch and Irish universities may also be ready to compete for the patronage of those licencees of the Conjoint Board who may wish to become "doctors." If the Conjoint Scheme becomes law, a student who might wish to graduate at London

would argue in this way: "I shall have to matriculate and to pass three professional examinations for my M.B., at a cost of seventeen guineas and a minimum of four years' medical study. The B.S. and M.D. will cost ten guineas more, making twenty-seven guineas; and the examination of the Conjoint Board, which costs five guineas, but confers no licence, will make a total of thirty-two guineas; and if I need the Conjoint *licence* before I take my degree the cost will be forty-seven guineas. If I take the Conjoint licence only I shall have a preliminary and two professional examinations to pass; I shall save two guineas (or seventeen, as the case may be) and at least two examinations; further, I shall have eleven letters to put after my name, and when I grow a little older and have money to spare I can easily take an *ad eundem* M.D." The good which the University has done to the profession has been by persuading men to undergo a certain training, and the result of this training on its graduates is too evident to need pointing out. The fact that in the past three years 267 candidates passed the preliminary scientific examination, and that last year forty-nine passed the first M.B., shows that this is widely recognised. To impose an extra examination and an extra money fine on our much examined candidates is a dangerous experiment, and may be like the last straw on the back of the camel. You call us an exclusive body; assuredly this extra examination cannot make us less so.

I have been accused of thinking of my University before the public good. This I deny; for I hold that the independent action of the University has always been so greatly for the public good, and has actually effected so many and such great reforms, that it can hardly be a benefit to the public for the University to hand over any of its independent power to a body upon whose earnings the existence of the Hunterian Museum and the salaries of fifty-two examiners will depend.

You say that the Conjoint Board will enjoy more respect if the universities join. This is true, no doubt; but if the universities undertake none of the examining, and have only a very small controlling power, the word "conjoint" will, after all, be little better than a pretence, and the Board will hardly be entitled to the extra respect which it may or may not thus obtain.

The three corporations and the University of London are obviously not amalgamable in the true sense of the word, and I still think that the interests of the public would be best served if the attempt to form a mock conjunction were not made.

I am, Sir, your obedient servant,

Wimpole-street, June 30, 1876. G. V. POORE.

*** Dr. Poore reproduces in a clear way the objections which he had made in his speech in Convocation, and which a less clever man than himself will readily perceive to be applicable to all the conjoint schemes that have been yet produced. Most of these objections have in truth been constantly urged by ourselves, and they have not been answered in argument. The hardship to the candidate for a higher qualification in being compelled to take a lower one, or rather two or three lower ones, and so to be mulcted in a very large sum before he can obtain either the higher degree or admission to the Register, is very great. But in a country where old corporations and vested interests have such power as in this, it seems, for the present at least, that the only Conjoint Scheme practicable is one that gives pecuniary compensation to the single bodies whose single examinations are superseded by the Conjoint arrangement. The opinion we have arrived at is that this arrangement must have a trial before any simpler and juster one can have a chance of being entertained by a Ministry or accepted by Parliament, which is profoundly apathetic to all medical questions. Our belief is that the cost and complicatedness of such an arrangement will be found to be so great that in the end it will be exchanged for something cheaper and more efficient. But, we repeat, that until the bodies have used the powers of combination given them by the Act of 1858 and by later Acts, and until this system has been proved to be unsatisfactory, we have no hope of seeing the examining system of the country put upon a reasonable basis. Dr. Poore's argument from the risk of opening the door to a system of *ad eundem* degrees wants a basis in facts. It is certainly premature to disparage the action of Durham before Durham has taken any action at all, further than to announce her intention of instituting a severe examination by foreign examiners as a condition of granting a degree in medicine without residence. As regards the Scotch and Irish universities, they deserve a little more trust than Dr. Poore seems to have in them. We cannot agree with Dr. Poore in thinking that the present Conjoint Scheme will give only an appearance of control over the examinations to the Universities. They will have the election of sixteen out of fifty-two examiners, and of the twenty members of the Committee of Reference twelve are to be elected by the Universities. It is true that the London University proposes that the Universities shall have no part in the work of electing examiners, but simply supervise examinations, and have a larger representation in the Committee of Reference. This is not the scheme at present before the bodies in England, but an arrangement essentially different. But even this would give the Universities a decidedly preponderating influence in the Committee of Reference, which, we are told, is to be the great medical authority of the future.—ED. L.

SUBCUTANEOUS INJECTION OF QUININE.

To the Editor of THE LANCET.

SIR,—In a late issue of your valuable journal there appeared, under the above head, a series of notes by Surgeon-Major Yeates Hunter, Bombay, who, though acknowledging the potency of quinine when thus introduced in cases of paludal fevers, complains of the disappointment, or rather, the attendant drug-evil, in the form of troublesome ulcers.

Dr. Hunter would perhaps be pleased to know that in the hypodermic treatment by quinine I have never in a single case had such a sequence, even with patients who were some of them very anæmic and in a state of semi-starvation—a condition not infrequent among the admissions in our charitable dispensaries. This result was brought about by the simple fact that, in the preparation used by myself, the *solvend was in a perfect state of solution*. That it is the undissolved crystals of quinine that caused this suppuration, and not the acid contained in the menstruum, first suggested itself to me by the fact that ulceration seldom followed the hypodermic use of the other alkaloids, and the solution of quinine being almost a saturated solution, it appeared to me most probable that some portion of the quinine remained in suspension undissolved. Acting under this conviction, I instituted a series of experiments on the living animal, injecting at first a weak solution of sulphuric acid, and gradually increasing the quantity till it reached the strength of the acid. sulph. dil. of the British Pharmacopœia—viz., minims one to twelve; the only effect produced being a slight blush, which disappeared in 48 hours.

In proof of the benign effects of subcutaneous injection of quinine, I may mention a very interesting case that occurred to me a few months back. I was called to attend a lady, a late arrival from Europe, robust and who had previously enjoyed good health; she contracted a severe remittent fever with biliary absorption. This patient from the beginning and throughout suffered from severe gastric irritability, which was no doubt augmented by pregnancy (she being in her sixth month); but such was the irritable state of her stomach that I at one time feared death from inanition. In her case the exhibition of quinine hypodermically was the only *ultimum remedium* that remained, and, explaining this to my patient, she willingly acceded to the treatment, which I must say she bore with unusual intrepidity. The total number of operations were twenty-nine, and as many as six injections were given in the twenty-four hours, sometimes two at one sitting, and in not a single instance did ulceration follow; the only symptom complained of being a general soreness about the upper arms, which necessitated transferring the seat of operations to the thigh. My patient made a good recovery, and never

ceased to speak gratefully of my cruel kindness, if I may so term it.

This case terminating so favourably has always impressed me with the great advantage derived by the *immediate* introduction of quinine in fevers, compared with the somewhat tardy and less effective *mediate* introduction by the mouth.

Yours obediently,

Rangoon, 31st May, 1876. R. S. DAWSON, L.R.C.P., &c.

ALLEGED PERSONATION AT EXAMINATIONS.

To the Editor of THE LANCET.

SIR,—I shall feel obliged by your insertion of the accompanying paragraph in THE LANCET of Saturday next.

Yours obediently,

ALEX. DUNCAN, Sec.

Faculty of Physicians and Surgeons, Glasgow, July 4th, 1876.

John Southan (*alias* Southern), belonging to Wolverhampton, and Verdon G. S. Dearden, of Sheffield, obtained certificates of having passed the Preliminary Examination of the Faculty of Physicians and Surgeons at Glasgow, the first-named in 1870, and the latter in 1872. Both were registered as medical students, and have since been prosecuting their studies—Southan at Charing-cross Hospital and Glasgow, and Dearden at the Sheffield School. Some time ago circumstances occurred which gave rise to a suspicion that neither of these persons had appeared personally at the examinations of the Faculty, but that they were represented by a deputy. The Council of the Faculty thereupon ordered a searching investigation to be made into the facts, and though placed somewhat at a disadvantage by the length of time which had elapsed since the cases occurred, they latterly obtained sufficient evidence to warrant them in placing the cases in the hands of the Procurator Fiscal. A warrant was issued for the apprehension of the two students, and also of Nathaniel H. H. Arthy, a teacher in Sheffield, who is charged with fraudulently personating both the students at the examinations of the Faculty. Arthy and Dearden have been committed for trial at Glasgow, while Southan, for whose apprehension a warrant has also been issued, has hitherto managed to elude the vigilance of the police.

PARIS.

(*From our own Correspondent.*)

DR. WOILLEZ'S SPIROPHOR.

DR. WOILLEZ, the talented physician of Lariboisière Hospital, has just presented to the Academy of Medicine an improved plan of artificial respiration for the drowned and stillborn. He has made numerous experiments on himself and others with the mechanical contrivance which he has invented, and he finds that it has the great advantage of dilating the lungs considerably, ensuring respiration by the natural process of raising the ribs and lowering the diaphragm, and that it has not the inconvenience of rupturing the pulmonary vesicles.

Dr. Woillez's contrivance consists in a large zinc or iron cylinder of the size of an adult's body, hermetically closed at one end and open at the other. The patient is introduced into this barrel through the opening, which is afterwards closed by means of a diaphragm, leaving only the head of the patient in the open air. The air around the patient's body is then forcibly pulled out, or "aspired," from the cylinder by means of a powerful bellows, and as soon as the vacuum is established the patient's chest is seen to dilate, and the normal movements of breathing take place, as in the natural condition. By means of a pane of glass and a thin glass rod arranged in the cylinder, all the respiratory movements are easily recorded. According to Dr. Woillez, from twelve to fourteen litres of air can thus be introduced every minute into the respiratory organs, and the ease with which it thus penetrates, compared with the difficulties of ordinary processes of artificial respiration, makes the inventor think that it is superior to every other method for reviving the drowned and stillborn. Of course it applies, according to Dr. Woillez, to every other kind of asphyxia.

Some of the members made a few remarks when Dr. Woillez presented his invention.

Professor Chauffard requested that some experiments be made before the Academy. Dr. Devergie wished that Dr. Voisin, who has a special service for the drowned and asphyxiated, should be provided with the means of experimenting on the subject. Professor Depaul spoke of the great value of the usual means of artificial respiration, and especially insufflation. He quoted the example of an infant who had been put aside in a room as dead, and had been lying there for some time, when it was brought back to life by means of insufflation.

Dr. Woillez's contrivance certainly presents several advantages, amongst which is a great saving of exertion; and it deserves a fair trial.

Obituary.

WILLIAM TURNBULL, M.D.

THE death of Dr. Turnbull, of Huddersfield, at the ripe age of eighty-two, will be deeply regretted by a very wide circle of friends and patients. Dr. Turnbull was born near Hawick in Scotland, and after passing through the usual course of study, graduated as M.D. in the University of Edinburgh, and some years later became L.R.C.P. Lond. His connexion with Huddersfield commenced in 1813, and he was for the long period of sixty years physician to the infirmary of the town. In 1872 the inhabitants subscribed a large sum of money for the purpose of conveying to the deceased the high opinion entertained of his character, and their indebtedness to him for the valuable services he had so long and faithfully rendered the town. The testimonial consisted of a timepiece, epergne, and silver salver, accompanied by a highly complimentary address. A lasting monument to his good deeds was completed but a short time before his death, when the medicated baths attached to the infirmary were opened. They were erected at a cost of nearly £2000, and a white marble slab placed in a wall at the entrance bears the following inscription:—"These baths, the gift of George Brooke, Esq., J.P., of Springwood Hall, were built by him for the alleviation of suffering and cure of disease, and in recognition of the eminent ability and unremitting services of William Turnbull, M.D., who for sixty years has held the office of physician to this infirmary. 1876."

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.

MEDICAL ACT AMENDMENT BILL.

Mr. COWPER-TEMPLE, on Wednesday, moved the second reading of the Medical Act Amendment (Foreign Universities) Bill, which proposes to open the medical profession to women in this country by providing that the production of a certificate or degree from certain foreign universities, of reputation in medical studies, shall entitle them to be registered as medical practitioners. Among other arguments in favour of the Bill, Mr. Cowper-Temple dwelt specially on the wide field open to women in India, where male doctors were not admitted to visit female patients.

The rejection of the Bill was moved by Mr. WHEELHOUSE, on the ground that the medical career and the previous education were unfit for women; and Dr. WARD, who seconded him, speaking from his own experience, dwelt on the objections to the joint education of the youth of both sexes in such a study as anatomy. He showed also that the Bill gave no guarantee for a sufficient education.

The Bill was supported by Mr. HENLEY, who thought that, as the population was increasing, the death-rate stationary, and the number of medical men decreasing, it was wise to take any steps which would give us a larger number of medical practitioners; by Dr. LUSH, who, though he did not believe that women doctors would ever come into general rivalry with men, was not disposed to resist the wish for the services of women; and by Lord ELCHO, who declined to be a party to closing any career to women.

Dr. CAMERON and Dr. PLAYFAIR joined in urging the withdrawal of the Bill in favour of Mr. Russell Gurney's Bill, which it was understood the Government would support; and, after some remarks from Mr. STANSFELD, who expatiated on the advance of public opinion, and particularly on the fact that the Medical Council had declined to recommend the exclusion of women from the profession,

Lord SANDON, who expressed his entire dissent from the objection that medical studies and practice would injure the delicacy, refinement, and higher feelings of women, intimated that the Government could not consent to a Bill dealing with foreign qualifications in the case of women alone. The Government had consulted the Medical Council and other authorities, including the few ladies who are now practising, to whom he paid a high compliment, and they had come to the conclusion to give their support to Mr. Russell Gurney's Bill, permitting any of the medical bodies to admit female practitioners.

Mr. BRIGHT and Sir H. JACKSON joined in urging the Government to take up Mr. Gurney's Bill this session.

Dr. O'LEARY spoke against the Bill, after which Mr. COWPER-TEMPLE intimated his willingness to withdraw the Bill, which was accordingly done.

ELECTIONS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ON Thursday last Mr. Simon, of London, Mr. G. M. Humphry, of Cambridge, and Mr. Holden, of London, were re-elected members of the Council of the College; and Mr. C. G. Wheelhouse, of Leeds, was elected a member. The voting was as follows:—Mr. Holden, 140 votes; Mr. Simon, 139; Mr. Humphry, 130; Mr. Wheelhouse, 116; Mr. W. Adams, 64; Mr. Hussey, 35.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen passed the first part of the Professional Examination, held July 4th:—

A. S. Faulkner, E. D. Maddick, R. Norman, A. J. M. Routh, and J. F. Rugg.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following candidates passed the required examination and received the diploma in Dental Surgery, at a meeting of the Board of Examiners on the 29th ult.:—

Bateman, George W., Elgin-crescent.
Birt, Stephen, Leamington, Warwick.
Brown, Richard, Tavistock, Devon.
Carter, Thomas S., Leeds.
Fairbrother, Horace J. L., Stockwell.
Furber, Alfred W., Kentish-town.
Marriott, George H., Albion-street.
Mason, Henry B., Exeter.
Roberts, Thomas A., London.
Small, Moreton A., Marylebone-road.
Stevens, Lewis W., Swansea.
Weiss, Felix H., Montague-place.
Willis, William F., Blackheath.

Five other candidates were examined, but were not approved.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on June 29th:—

Duke, Edgar, Clapham-road.
Snell, Edward Arthur, St. Wilfred's, Mortlake.
Southam, Frederick Armitage, Pendleton, Manchester.

The following gentlemen passed the Primary Professional Examination on the same day:—

Alford, Charles Edward, University College.
Crick, Samuel Arthur, St. Thomas's Hospital.
Jolly, Robert William, Charing-cross Hospital.
Woodman, William Edwin, St. Thomas's Hospital.

UNIVERSITY OF DUBLIN.—The following degrees were conferred on the 28th ult.:—

BACHELOR IN MEDICINE.—Arthur H. Benson, William Blunden, Richard E. Biddulph, George Comyn, John Henry Dwyer, Charles N. Fox, Richard Fullerton, Dudley Loftus Fitzgerald, Charles Gorman, Thomas Kinley Hamilton, James Alexander Greer Hamilton, William Wallace Kenny, William F. Lambert, George Reginald Leeper, Robert M. Maginnis, Shapland Newell, David Wilson Orr, Jones Lloyd Peyton, Jonas S. Poole, Edward Richard Power, Oliver Sproule, Sidney Hamilton Taylor, George Whitaker, William Aiken Wright.

DOCTOR IN MEDICINE.—James Henry Leslie Allen, George Wyndham Crowe, David Drummond, K. M. Franks, William Henry Goode, Nathaniel H. Kane, Alexander Macalister (dip. con.), James Emerson Reynolds (honoris causa), Phineas Barrett Tuthill.

LICENTIATE IN MEDICINE.—Charles Alfred Cooper.

MASTER IN SURGERY.—H. E. W. Barrington, Lawrence Corcoran, Charles Fetherston, Charles Nugent Fox, Jonas S. Poole.

LICENTIATE IN SURGERY.—Martin O'Carroll.

BACHELOR IN SURGERY.—Richard Fullerton, Charles Gorman, Robert M. Maginnis, Jones Lloyd Peyton, Oliver Sproule.

THE Wantage Guardians have increased the salary of Mr. Edward A. Tyler, Medical Officer of the Ilsley District, from £55 to £75 per annum.

AT the Quarterly Court of the Governors of Addenbrooke's Hospital, Cambridge, held last week, it was determined to add a new wing, at a cost of over £3000.

ON Wednesday last Dr. Risdon Bennett distributed the prizes to the successful students of St. Thomas's Hospital. He was supported by Sir Francis Hicks, Sir Thomas Dakin, Mr. Le Gros Clark, &c.

THE annual death-rate in the metropolis last week was 17·6 per 1000—a lower rate than has prevailed in any week since September, 1874. There were registered 1175 deaths, including 3 from small-pox, 30 from measles, 26 from scarlet fever, 7 from diphtheria, 28 from whooping-cough, 17 from different forms of fever, 49 from diarrhœa, and 186 referred to diseases of the respiratory organs. Of the twenty large English towns, Leicester is to be congratulated on having the very low annual death-rate of 9 per 1000.

THE Manchester and Salford Sanitary Association have held their annual meeting, under the presidency of Dr. Ransome. A report detailing the operations of the Association during the past year laid stress upon the apathy displayed by the Corporation of Manchester in connexion with hospital accommodation, which it charges with "evading the performance of an obvious duty, while hundreds of lives are being annually sacrificed to official inaction." We regret to find that the efforts of the Association in the interests of the public health are greatly hampered for want of funds. The good work it has accomplished during the quarter of a century it has been in existence warrants its appeal for increased support.

PRESENTATION.—Dr. William Highmore, of Sherborne, has been presented with a glass epergne, a silver-plated biscuit-box, a set of breakfast cruets, and an illuminated address, with upwards of a hundred signatures, as follows:—"1876. Presented to Dr. Highmore by the patients of the Yeatman Hospital who have been under his care from time to time during the last ten years he has been the senior medical officer of that institution."

BEQUESTS TO MEDICAL CHARITIES.—Mr. Robert Cheere, of York-terrace, Regent's-park, bequeathed £1000 to King's College, and £1000 to King's College Hospital. The Eastern Counties Asylum for Idiots, Colchester, has received £500, less duty, under the will of Miss Elizabeth Hunter Hughes, of Layham. The York County Hospital has received £200, and the York Dispensary £100, under the will of Mrs. Maria Sunter.

EAST LONDON MEDICAL DEFENCE ASSOCIATION.—This branch of the Medical Defence Association, formed in July, 1875, for the purpose of suppressing the practice of medicine and surgery by persons holding no registerable qualification, has added to its original intention the following programme:—1. To endeavour, in conjunction with the Council of the General Association, to procure an amendment of the law relating to quack medicines. 2. To endeavour, by co-operating with the aforesaid Council for the purpose, to effect a reform in the present mode of indiscriminate relief in the out-patient departments of our hospitals and dispensaries. 3. And also to endeavour, with the aid of the Council, to obtain an amendment of the penal clause of the Medical Act of 1858. Under the Apothecaries' Act of 1815, six penalties of £20 each and costs have already been recovered by this branch from persons who were practising medicine in the locality without legal qualification.

BOOKS ETC. RECEIVED.

Mr. Macnamara: A History of Asiatic Cholera.
Dr. Turnbull: On Tinnitus Aurium.
Dr. Piffard: Diseases of the Skin.
Mr. Owen: Tables of Materia Medica.
E. A. Browne: How to Use the Ophthalmoscope.
Wm. Odling: A Course of Practical Chemistry.
Mr. Cullingworth: The Nurse's Companion.
Mr. Waring: The Sanitary Drainage of Houses and Towns.
Gen. Plessonton: Blue- and Sun-lights, &c.
The Harrogate Mineral Waters.
Register of Visits and Index of Notes.
Carmichael Prize Essay.
Mr. Evans: Through Bosnia and the Herzegovina.
The Appointment Dial.
Dr. Wagner: Syphilis of the Nose and Larynx.
" Hoarseness and its Causes.
Nouveau Dictionnaire de Médecine et de Chirurgie.
Medicinal Plants. Part X.
Dr. Tilbury Fox: Atlas of Skin Diseases.
Mr. Hutchinson: Illustrations of Clinical Surgery.
German Home-Life.
Dr. Hammond: Spiritualism and Nervous Derangement.

Medical Appointments.

BERNEY, A., M.R.C.S.E., L.A.H.D., has been appointed Apothecary to the Nenagh Gaol, vice Kittson, deceased.

BOWNESS, R. H., M.D., L.R.C.P.Ed., F.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Poulton District of the Fylde Union, Lancashire, vice Clarke, deceased.

BRADFORD, C., L.S.A.L., has been appointed a House-Surgeon to the Queen's Hospital, Birmingham, vice Smith, resigned.

BUCKMASTER, W., M.D., M.R.C.S.E., L.A.H.D., has been appointed Medical Officer to the Workhouse and Fever Hospital of the Middleton Union, co. Cork, vice Johnston, deceased.

BULL, W. H., M.R.C.S.E., L.R.C.P.L., has been appointed Surgeon to the Cottage Hospital and to the Provident Dispensary, Stoney-Stratford, vice Mackay, deceased.

BULLMORE, W. K., M.D., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Falmouth Port Sanitary District, at £60 per annum.

CAHALAN, F., L.K.Q.C.P.I. & L.M., M.R.C.S.E., has been appointed Medical Officer to the Nenagh Gaol, vice Kittson, deceased.

CARMODY, W. F. P., M.D., C.M., L.M., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Clonmany Dispensary District of the Inishowen Union, co. Donegal, vice Segrave, resigned.

CASSIDY, D. M., M.D., C.M., has been appointed Resident Medical Superintendent of the County Lunatic Asylum at Lancaster, vice Broadhurst, resigned.

CHAPPERTON, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Broughton District of the Stockbridge Union.

COLLINGWOOD, J. E., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Corby District of the Bourn Union, vice J. Collingwood, M.R.C.S.E., deceased.

DAVEY, R. S., M.D., M.R.C.S.E. & L.M., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the 2nd Division of the St. James District of the Dover Union, vice R. G. Davey, M.R.C.S.E., L.S.A.L., deceased.

DWYER, M. C., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Rathdrum Dispensary District of the Rathdrum Union, co. Wicklow, vice Gibbs, resigned.

FARNCOMBE, R., has been appointed a Vice-President of the Birmingham Medical Benevolent Society.

FIELD, R., M.R.C.S.E., has been appointed Medical Officer of Health for the Drighlington Urban Sanitary District, vice Rayner, whose appointment has expired.

FOSTER, B. W., M.D., has been elected President of the Birmingham Medical Benevolent Society.

FRASER, D., M.D., F.F.P.S.G., has been appointed Visiting Medical Officer to the new Parochial Lunatic Asylum, Paisley.

GARDEN, R. J., M.D., C.M., has been appointed Assistant-Surgeon to the Royal Infirmary, Aberdeen.

HAMILTON, C. W., L.R.C.P.Ed. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Achill Division of the Achill Dispensary District, Newport Union, co. Mayo, Medical Attendant to the Royal Irish Constabulary, Achill, and Admiralty Surgeon and Agent for Achillbeg, Dugort, Keel, and Bullsmouth, all vice Maturin, resigned.

HATCHELL, G. W., L.R.C.S.I., L.K.Q.C.P.I., has been appointed Assistant to the Resident Medical Superintendent of the Downpatrick District Lunatic Asylum, vice Hetherington, appointed Resident Medical Superintendent of the Londonderry District Lunatic Asylum.

HERNSTED, H., M.R.C.S.E. & L.M., L.S.A.L., has been appointed Medical Officer for the St. Mary Bourne District of the Whitchurch Union, vice Stevens, resigned.

HILL, R. B., M.B., L.R.C.S.Ed., has been appointed House-Physician to the Hertford British Hospital, Paris, vice Dr. B. Cormack, deceased.

HOOD, F., L.R.C.P.L., M.R.C.S.E., has been appointed Assistant Medical Officer to the Metropolitan Asylum District Asylum for Lunatics at Leavesden, vice Case, appointed Medical Superintendent of the Metropolitan Asylum District Asylum for Imbeciles, Haverstock-hill.

HORDER, T. G., L.R.C.P.Ed., M.R.C.S.E., has been appointed Public Vaccinator of Cardiff, vice Evans, deceased.

HUNT, R., L.R.C.P.Ed., M.R.C.S.E., has been appointed Senior Resident Medical Officer to the Leeds Public Dispensary, vice Jenkinson, deceased.

JOHNSTON, A. A., L.R.C.P.Ed., L.R.C.S.I., has been appointed House-Surgeon to the General Dispensary, Bournemouth, vice Hearn, resigned.

JOYCE, W., has been appointed a Vice-President of the Birmingham Medical Benevolent Society.

KYNGDON, F. H., M.B., C.M., M.R.C.S.E., has been appointed a House-Physician to the London Hospital.

LYALL, T., has been appointed Superintendent of the new Parochial Lunatic Asylum, Paisley.

MCCOY, D. F., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer for the Rathkeale No. 1 Dispensary District of the Rathkeale Union, co. Limerick, vice O'Hanlon, deceased.

MARRIOTT, C. W., has been appointed a Vice-President of the Birmingham Medical Benevolent Society.

NEWMAN, J. J., M.R.C.S.E., L.R.C.P., has been appointed House-Surgeon and Secretary to the Royal Isle of Wight Infirmary, vice Sparrow, resigned.

OGSTON, A., M.D., C.M., has been appointed second Surgeon to the Royal Infirmary, Aberdeen.

OSBORNE, J., M.D., C.M., has been appointed Medical Officer for the Mirfield District of the Dewsbury Union, vice Booth, resigned.

OWEN, E., F.R.C.S., has been appointed Assistant-Surgeon to the Hospital for Sick Children, Great Ormond-street.

OWEN, R., L.S.A.L., has been appointed Assistant House-Surgeon and Dispenser to the Kent and Canterbury Hospital, vice Wickham, resigned.

PORTEOUS, J. L., L.R.C.P.E., L.R.C.S.E. & L.M., has been appointed Parochial Medical Officer, Public Vaccinator, and Medical Officer of Health for the Western District of the Parish of Dysart, Fife, N.B.

PRICE, H. E., B.Sc., M.R.C.S.E., has been appointed a House-Physician to the London Hospital.

PRINGLE, J., M.D., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Strathmiglo, Fifeshire, vice Niven, resigned.

ROBINSON, Dr., has been appointed a Vice-President of the Birmingham Medical Benevolent Society.

ROXBURGH, R., M.B., L.R.C.S.E., has been appointed Resident Medical Officer to the Chalmers Hospital, Edinburgh, vice Brown, appointed a House-Physician to the Royal Infirmary, Edinburgh.

SAUNDERS, C. E., M.D., M.R.C.S.E., has been appointed Medical Officer of Health for the Harrow Urban Sanitary District, vice Bowen, resigned.

SELLER, J. L., M.D. & L.M., L.R.C.S.Ed., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Tarporley District of the Nantwich Union, vice Bird, deceased.

SMITH, J. G., M.B., C.M., has been appointed Assistant House-Surgeon to the Royal Infirmary, Bristol, vice Shaw, resigned.

SOPER, Isabell H., M.R.C.S.E., has been reappointed Medical Officer and Public Vaccinator for the Nantyglo District of the Bedwellty Union.

TAYLOR, J. M., M.R.C.S.E., has been appointed Resident Surgeon to the Camp-hill Branch of the General Dispensary, Birmingham, vice Eddington, resigned.

WILSON, J. H., M.B., C.M., has been appointed Assistant Medical Officer to the Ipswich Lunatic Asylum, vice Bowes, resigned.

WRIGHTSON, E. W., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer of Health for the Blything Rural Sanitary District, Suffolk. £100 for one year.

Births, Marriages, and Deaths.

BIRTHS.

BANKS.—On the 16th ult., at Rodney-street, Liverpool, the wife of William Mitchell Banks, M.D., of a son.

COLLES.—On the 26th ult., at Bridgnorth, the wife of Abraham Colles, M.B., of a daughter.

DOWNES.—On the 29th ult., at St. Mary's-terrace, Paddington, the wife of Edmund Downes, of the Church Missionary Society, and late Royal Artillery, of a son.

PICKERING.—On the 26th ult., at South Kensington, the wife of T. H. Pickering, L.K.Q.C.P.I., of a son.

PRICE.—On the 30th ult., at Kettering, the wife of J. Lowe Price, M.R.C.S.E., of a son.

TURNER.—On the 30th ult., at High Wycombe, the wife of Frederick Harry Turner, M.R.C.S.E., of a son.

WILLIAMS.—On the 27th ult., at Prince of Wales-road, Norwich, the wife of Charles Williams, F.R.C.S.Ed., of a daughter.

MARRIAGES.

MOORE—CAMPBELL.—On the 29th ult., at Glasgow, Bolinbroke Ayres Moore, L.R.C.S.I., to Jessie, daughter of the late Duncan Campbell, Esq.

STONE—FRENCH.—On the 28th ult., at the Parish Church, Appledore, Valentine Stone, F.R.C.S.Ed., to Ellen, daughter of the Rev. M. D. French.

DEATHS.

BUSH.—On the 28th ult., at Great George-street, Bristol, Danvers Ward Bush, M.D., aged 37.

HOLMES.—On the 22nd ult., at Ivybridge, Devonshire, William Marshall Holmes, aged 54.

PLAYRE.—On the 14th ult., at Schloss Gayen, near Meran, in Tyrol, Thomas Playre, M.D., aged 60.

POYNTZ.—On the 23rd ult., at Ballinrobe, co. Mayo, John Eager Poyntz, L.A.H.D., aged 76.

ROBERTS.—On the 30th ult., at Granton, George Ogilvy Roberts, L.R.C.P.Ed.

SOUTHAM.—On the 26th ult., at the Lunatic Asylum, Northampton, Francis Southam, M.R.C.S.E., aged 58.

TAYLOR.—On the 2nd inst., at Ashley-road, Bristol, James Taylor, M.R.C.S.E., aged 60.

THOMSON.—On the 27th ult., at Douglas, Isle of Man, Thomas Richard Heywood Thomson, M.D., aged 62.

TOTHILL.—On the 29th ult., at Charles-street, St. James's, Frederick Disting Tothill, F.R.C.S.E., L.S.A.L., aged 66.

[N.B.—*A fee of 2s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

MORTALITY OF WELSH MINERS.

ONE of the Government Inspectors of Mines, reporting on metalliferous mines in Wales, states that, the slate mines having come under inspection, he has made a preliminary inquiry into the condition of the men employed in them, and he finds that in 1875 (a fair average year), in the sub-district of Festiniog, 35 of the 61 deaths of males above ten years old were deaths of persons employed at the slate mines, and their average age at death was below 38 years, but the average age at death of the others not employed at the slate mines exceeded 67 years. Of the 35 slate-mine workers, 9 died from accidents, 14 from lung diseases, 4 from fevers; and, even excluding the deaths by accidents, the age was below 41 years, or 26 years below the average age at death of males not employed at the mines. Yet, says the Inspector, this is a class of workmen who receive wages high enough to secure them every domestic comfort; their habits are generally temperate, and their leisure "is principally spent in religious exercises and the cultivation of literature and music." How is it that they are cut off at an age which to a stranger might suggest either miserable destitution or habits of irregularity and excess? The Inspector intends to prosecute his inquiries further, as other engagements may allow; but he observes dire causes of feeblences of constitution. The dwellings, he says, are overcrowded and badly ventilated, and the sleeping accommodation is grossly deficient. The villages in which the miners live are in a filthy state, and the water used is not fit for culinary purposes. The invariable result occurs; typhoid and other fevers are always present, and occasionally break out with extreme virulence. The Inspector makes bold to say that, whether the physical degeneracy of these men arises chiefly from the nature of their work or from domestic misery, sentiments of humanity should long ago have awakened in the proprietors of the mines a desire to improve the condition and secure the health of the men, whose labour and intelligent skill literally convert their great slate masses into mountains of wealth.

Mr. Robt. Mallet's (Westminster Chambers) communication has been received, and shall have our early attention.

POISONING BY CAMPHOR.

To the Editor of THE LANCET.

SIR,—I send you the following notes of a case of poisoning by camphor, if you think them of sufficient interest to place before your readers.

I received an urgent summons at 7.30 P.M. on Saturday, June 17th, to see a little boy, aged eight years. I went at once, and found him comatose, with shrunk features; cold, clammy skin, and great pallor; pulse 48, regular, but very feeble; pupils equal, and slightly contracted. On asking for particulars of his illness, all the information I could obtain from his parents was that he had gone out after dinner at two o'clock, perfectly well, and returned about half-past six "in a state of intoxication," as they thought; for he reeled into the house, and fell on the floor in an insensible condition, and they had been unable to get anything out of him. Upon giving him a vigorous shaking, he roused up a little, and vomited about an ounce of semi-digested food, which smelt very powerfully of camphor. With a good deal of trouble I made him swallow half a pint of warm water, and applied a feather to the fauces until he vomited freely, when I repeated the dose until the stomach appeared to be perfectly evacuated. The vomited matter had a very strong odour of camphor, and contained large lumps of meat, which he must have "bolted" at dinner, and which were only very slightly digested. He was very sleepy and stupid, but could now tell me that he "felt very giddy and ill, and wanted to go to sleep." We applied friction vigorously to his legs, and walked him about in the garden for some time until he rallied gradually, and I left him a little after nine o'clock. The after-treatment consisted in giving him an aperient powder, and two grains of carbonate of ammonia in water every two hours.

The next morning the patient was quite well, and he then told me that he had been playing with a piece of camphor that had been given to him, and in mistake for a piece of india-rubber, which he had in his hand, and was throwing into the air and catching in his mouth, he caught the camphor, and it slipped down his throat unawares. This occurred about 4.30 P.M., and he felt no effect for two hours, when he began to be very dizzy and ill, and made the best of his way home, but how he got there he could not tell. The camphor swallowed was as big as a good-sized cobnut. He has had no ill-effects since, and neither stomach nor urinary organs appear to have suffered at all.

Yours faithfully,

Newark, June 24th, 1876. F. H. APPLEBY.

A SUPPOSED INFERNAL MACHINE.

AN examination of a burning canister dropped in a street in Liverpool, and which alarmed the inhabitants considerably, has been made by Dr. Brown. The machine was nothing more serious than a species of signal light used on board ship, and which when thrown into the water gives a very brilliant light. Dr. Brown reports that the agent consists of phosphoride of calcium, prepared by passing the vapour of phosphorus over red-hot lime. Two conditions are necessary to ignition: the powder must come in contact with water, and the gas evolved must come in contact with air.

Virginia must consult a medical practitioner on the delicate point she has submitted to us.

ADMINISTRATION OF CROTON OIL.

M. ROBERT advises a drop to be placed on a lump of sugar, the latter to be triturated and divided into several parts. Let one part be given every hour in some almond emulsion, when the patient, from some injury to the head, swallows with difficulty.

EMBOLISM.

AT a meeting of the Medical Society of Strasburg, Dr. Roth stated that he was called to a patient suffering from phlegmasia alba dolens on the left side, and who had been confined a fortnight. She made rather light of her complaint, and used to get up a little in the course of the day. On Dr. Roth's visit the patient was sitting up in bed and talking to her friends. On examination, a knot of varicose veins was noticed half way up the left thigh, and another of the same nature on the right side. The surgeon now passed his hand lightly over the latter tumour, and the patient immediately fainted, fell back on the pillow, turned her head on one side, drew a deep breath several times, and expired in a few moments. Dr. Roth was, of course, greatly shocked at this end occurrence, and judged that the cause of death must be embolism of the pulmonary artery. The slight pressure on the congeries of varicose veins had probably given rise to the migration of a clot. Dr. Schützenberger thought this explanation perfectly admissible, and recollected a similar case, under the care of Dr. Koeberle, where the clot was found in the pulmonary artery. Dr. Schützenberger had himself treated two brothers suffering from varicose veins, the complaint running in the family. One of them had, besides, phlebitis of the leg, and was progressing favourably, when he was seized with choking in the night, and immediately died. No post-mortem was allowed, but there is no doubt that the explanation was similar to that mentioned above. Some years afterwards the surviving brother died exactly in the same manner.

Mr. O'Donohoe.—We have no doubt the Secretary of the institution will afford our correspondent the required information.

Dr. Julius Pollock is thanked.

TRAINED NURSES.

To the Editor of THE LANCET.

SIR,—The last number of the *Medico-Chirurgical Review* quotes the report of the National Association for providing Trained Nurses, which is as follows:—

"Even the improved training for hospital nurses given as the Nightingale School does not supply the comprehensive education and training that would elevate nursing to the rank of a scientific *art* for educated women like the medical profession; for it does not profess to train 'private nurses,' although the training given to its hospital nurses and superintendents is the only systematic one in England. To give nursing the social rank and standing that would make it a profession fit for women of cultivation, a more comprehensive education and training would be necessary, and this would secure to its members the social position and material rewards that belong to those who combine a scientific education with a useful calling..... This National Association also approves Dr. Howard's (Montreal) plan—viz., a liberal preliminary education equal to that of the medical student, and a professional one of three years, embracing anatomy, physiology, chemistry, materia medica, pharmacy, dietetics, hygiene, and clinical instruction in nursing the sick and wounded, in dressing wounds, and applying splints, &c. Such nurses might receive a diploma upon examination, entitling them to practice nursing."

The *Review* says, "This is a project for the conversion of nurses into medical practitioners..... If medical men want women to 'take' their cases for them, to record the daily features of disease, to reduce fractures and dislocations, to apply bandages and splints, to use the tourniquet and catheter, and to treat wounds of all sorts, it would seem to us that in so doing they desire to abrogate their own functions. It would look as though they regarded the minor details of their profession as unworthy of their individual care, whatever importance they may in words assign to the right observance and attendance on those details. It would imply that medical men assume the care and treatment of a larger number of patients than they can individually and efficiently attend to; or, in other words, that there is a deficiency in the supply of medical aid to meet the public requirements. We would earnestly contend against the medical education of nurses according to the plan proposed, with the assigned object of giving them a professional status on a level with medical men. To do so would be to introduce by a side wind a new class of practitioners, of middling information and skill, who would become a constant cause of annoyance and embarrassment to the regular practitioner. To attempt to give nurses instruction as to the 'reason why' the surgeon or physician considers this or that expedient necessary would be in the majority of instances to inflict a heavy task upon them, and to lift them more or less out of their proper sphere, possibly at the risk of withdrawing them from due attention to their less intellectual but equally useful functions. To give them more than an insight into it is to demand for them complete education as medical practitioners, and to transform them from nurses into doctors—a consummation assuredly not to be desired."

Will the medical men and students tamely look on when the nurses dress those who are operated on in the operating theatre? If they do not unite and agitate immediately, this National Association and Westminster Training School will reduce the practices of the former one-half, and give the latter but a scanty pittance after years of toil. You students in the hospitals demand the return of your fees, or the exclusion of the trained and training nurses from the wards, which are for your exclusive instruction. University, King's, St. Thomas's, Middlesex, Westminster, are with you; arise to your work, and eject them. This is a crisis, and let your only motto be that with which I shall subscribe myself,

Yours faithfully,

June, 1876. FIGHT.

THE ACADEMY OF MEDICINE OF PARIS.

FOR some time past there has been great wonderment at the delay in fixing the annual meeting, when, according to custom, the successful candidates for the numerous prizes would be made known, a discourse delivered on some eminent departed member of the Academy, the subjects for the prizes of 1878 announced, various medals bestowed, &c. But the usual time having long passed, people begin to migrate into the country, and much alarm is expressed by the competitors for prizes. *L'Union Médicale*, which professes great love and respect for the Academy, is loudest in complaints about this matter.

A DEGREE WITHOUT RESIDENCE.

WE are favoured by *Dr. Philipson* with a formal notification of what we substantially announced last week, that at a Convocation of the University of Durham, held on the 27th of June, a grace was submitted and approved, giving the Warden and Senate power to institute a special examination, with the view of affording to medical practitioners of fifteen years' standing the opportunity of obtaining the degree of Doctor of Medicine without residence. We have already expressed our opinion in reference to this step on the part of the University of Durham.

SUICIDE AND LIFE INSURANCE.

A CASE of this kind was lately before one of the Paris Courts, and has been decided against the Company. The Court held that with the latter lay the *onus probandi* that the insured had wilfully destroyed his own life by throwing himself out of the window. This they had failed to do, as it was ascertained that previous to the act the insured was seized with a maniacal fit, and that insanity had led to suicide.

Aqua Pluvialis would find one of Crease's filters well adapted to the special purpose alluded to.

M.D.—Has the patient's urine been examined?

USE OF ALCOHOL IN WORKHOUSES.

To the Editor of THE LANCET.

SIR,—The Kensington guardians have been much exercised of late concerning a report of the Wrexham guardians on the use, or rather disuse, of alcoholic stimulants by the pauper inmates of their workhouse. This report has been examined by the intelligent medical officer of the Kensington Infirmary on requisition of the guardians, and found to be fallacious, for as much as the figures go to prove that the mortality among the pauper inmates of the Wrexham Workhouse has been greater *pro rata* since the entire disuse of stimulants was established (particularly among the aged) than previously.

The Kensington guardians at their last meeting wisely passed a resolution, approving their medical officer's report, which opposed the views held by the Wrexham guardians and their medical officer, and I am quite assured this action will receive the hearty support of the ratepayers generally and of the medical profession also. As a comment on the practice of the Wrexham guardians, I may cite a paragraph which appeared in *The Times* of the 26th ult. relating to the death of a pauper in the parish of St. George's-in-the-East, where the medical officer is said to have stated "that death had resulted from bronchitis and congestion of the lungs, and that if brandy had been administered in time the deceased's life would have been prolonged, and probably saved." So long as the Medical Council agree to retain alcoholic stimulants as a part of the materia medica of the British Pharmacopœia, so long, Sir, is it beyond the power of any board of guardians to prohibit their use, and I cannot but think that the Wrexham guardians and their medical adviser are gravely censurable for having entirely disused alcoholic stimulants during the last three years, in the face of the fact that the death-rate has thereby been materially raised. It is rumoured that some metropolitan guardians are prepared to *try* the plan of the Wrexham guardians, and to prohibit the prescription of stimulants to the paupers under their supervision. I protest, Sir, against this. "Fiat experimentum in corpore vili" is an axiom which should be more "honoured in the breach than in the observance" by any guardians of the poor, whether at Wrexham or elsewhere.

Yours &c.,

July, 1876. GUARDIAN.

A NEW HOSPITAL IN PARIS.

SUCH an institution is at present being erected in the 20th district of Paris, and will contain 300 beds. The building is quite detached, and stands on a piece of land hitherto lying waste; but there is a question of adding a free square. As is now the custom, the hospital consists of isolated buildings; the wards are large, and are to have only 22 beds. Lifts will be provided, as in the new Hôtel Dieu, and the establishment will be extremely useful, as the 20th district and two neighbouring ones are thickly populated.

Mr. Monteith.—The "serious complaint concerning the Epileptic and Paralytic Hospital, St. John's-wood," should be brought before the Committee. We presume the institution has a Board of Managers.

A Sufferer should consult any good practitioner.

CHLORAL HYDRATE IN DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—Dr. Cesare Ciattaglia in your last impression gives some facts on the local application of chloral hydrate in diphtheria. In this disease the benefit which results is due mainly to the antiseptic action of the chloral hydrate. Most antiseptic remedies will act with the same benefit, some with more. Antiseptics may be said to have two actions—(*a*) On the mucous membrane; (*b*) on the exudation. They prevent the spread of the local affection. It is difficult to say in what way this is brought about. It seems to be partly due to a local sedative action which some antiseptics have on the mucous membrane, and partly to their antiseptic action on the exudation. They destroy the activity of septic particles; this is their most important action. Septic particles are inspired, and find in the exudation a material for their rapid reproduction and development; the exudation becomes decomposed, irritates the surrounding mucous membrane, and causes the local affection to spread. Results of the decomposition find their way into the circulation; inflammation and ulceration of the small vessels in contact with the decomposed exudation occur; thrombi and emboli form; scepticæmia, pneumonia, and other results of a poisoned and altered condition of the blood occur, which so often have a fatal termination. It seems to me to be as necessary to prevent the decomposition of the exudation in diphtheria as it is in open wounds. This is only to be done by constant and thorough local application of antiseptics. Carbolic-acid solution will be found to be a more pleasant local application than chloral hydrate, the latter causing a burning sensation.

Yours obediently,

Hampstead, July 3rd, 1876. FRED. S. ALFORD.

"PHYSICIANS AND DRUGGISTS."

To the Editor of THE LANCET.

SIR,—Excepting some errors upon matters of fact presently to be dealt with, the circumstance reported to you by "Provincial Surgeon" coincides with a case that came before me in April last; and as I feel confident I am the physician charged with irregular conduct, I at once take upon myself the responsibility of the whole matter, and ask you to publish my version of the facts and a comment or two.

On the 20th of April, Miss —— was brought to me by her mother, who informed me that her daughter had been ailing for a long time, had been under the care of Messrs. Forster and Lucas, of Huntingdon, and that one of those gentlemen had strongly advised her to bring her daughter to London to consult Dr. ——, but that for reasons she gave she requested my opinion on the case. On the 24th of April I saw Miss —— at a friend's house near here, and then I prescribed for her: ℞ Mistura acidi nitro-hydrochlorici c. ferro, et strychniæ (*Kirby's*), ℥j. ter die. Some short time after I visited Miss ——, she wrote to me from Folkestone, describing sensations which followed the administration of each dose of the mixture, and I then wrote and sent this prescription: ℞ Pilulæ tonici, xl. (*Kirby's*); take j. after meals three times a day. So much for the *facts*. Now for the explanation. Some years ago I was favourably impressed with the portability and elegance in administration of Messrs. Kirby's mixtures and pills—very important considerations, by the way, when ordering nauseous drugs for young people. After prescribing them for a time, I found the patients had great difficulty in obtaining the medicines, so few dispensers keeping them in stock. To overcome this obstacle, I called upon Messrs. Probyn, of Grosvenor-street, and at once they very courteously undertook to keep ready for use such of Kirby's medicines as I suggested. Since then, when prescribing these forms, I have recommended the patients, for the reasons just stated, to get them at Mr. Probyn's, and I feel no doubt that I did so in Miss ——'s case. Next for the comments.

1. That I gave Miss —— "an injunction," as you state, to obtain this medicine at "a certain chemist's," is most emphatically untrue. Never have I given any patient an injunction to this effect, or more plainly put, I never led any patient to believe that any prescription I ever wrote contained anything of a private character.

2. Your "Provincial Surgeon" instructs you: "The medicine not suiting, another visit was made," &c. This statement also is simply untrue. The patient wrote; I replied by letter; and no fee was either asked for or expected for this simple alteration in the form of the drug prescribed.

3. Your whole annotation savours of the insinuation conveyed evidently in your correspondent's communication to you, which in plain language means this—that I, for a distinct money consideration, did induce Miss —— to take my ℞ to Messrs. Probyn in order that I might derive profit and advantage by her doing so. Now, Sir, permit me plainly and clearly to inform this "Provincial Surgeon" that *never* have I either taken, or received, or permitted, or caused to be received or taken by any person or persons on my behalf, from any chemist or druggist, as a recompense or consideration for any prescriptions I may have advised to be given them for preparation, *the value of one farthing*.

4. It is just possible while writing the ℞ for Miss —— that I inadvertently omitted the word "Kirby's." I find this has happened three times since June, 1873, out of some hundreds of such prescriptions. If I did so, I deeply regret the omission. And, Sir,

Lastly, one word upon your remark respecting the College of Physicians. For myself, I do affirm that during the sixteen years I have been a member of that College, it has been my constant, my earnest, and my sincere endeavour, not in the letter only, but in the very spirit, to carry out in my daily life in their integrity all the obligations which at my election I voluntarily accepted. I have some hope that I have not been wholly unsuccessful. At any rate if in the above case I have sinned, it is some little comfort to know that I have done so in most excellent company, for it has been made clear to me that the most distinguished and most excellent physicians now living continually write prescriptions for Probyn's, Kirby's, Squire's, Savory and Moore's, and other chemists special preparations.

I am, Sir, yours faithfully,

Brook-street, Grosvenor-square, July 3rd, 1876. JAMES PALFREY.

*** We fail to follow Dr. Palfrey in his argument. He first states that to the formulæ he wrote he appended the name of *Kirby*. He italicises this fact. Afterwards he admits that this distinguishing point, by which an ordinary chemist could have dispensed the medicine, may have been omitted. Then he says our statement that he directed the patient to go to a certain chemist is "emphatically untrue," yet he informs us that Messrs. Probyn, of Grosvenor-street, have undertaken to keep *Kirby's* preparations for him, and when prescribing he recommends his patients to get them at that chemist's, and that he feels no doubt that he did so in the present case. We are aware that it is a practice with physicians to prescribe the special preparations of different chemists, but we are not aware that they arrange with these chemists to dispense those preparations for them. Messrs. Kirby's preparations are well-known and recognised by the profession, and can easily be procured through any ordinary chemist. We readily believe Dr. Palfrey when he states that he did not receive any pecuniary benefit from the arrangement or other indirect advantage. But the practice is a dangerous one, and might, if permitted, lead to great abuse.—ED. L.

To the Editor of THE LANCET.

SIR,—From "information received" we feel assured that we are the chemists alluded to in your annotation, "Physicians and Druggists," and that Dr. Palfrey is the physician so referred to.

We must ask you to permit us, in the strongest language possible, to repudiate with indignation the insinuation of your correspondent, "A Provincial Surgeon," and to remark that during nearly the half century this business has been established we have never dreamed of offering an insult of so gross and dishonourable a character as that implied in your correspondent's communication. And allow us in simple justice to Dr. Palfrey to state that we know of no consultant (whose confidence it is our privilege to enjoy) more scrupulously punctillious in all that appertains to professional integrity.

We remain, Sir, yours very faithfully,

PROBYN AND COMPANY.

Grosvenor-street, London, W., July 3rd, 1876.

RECTAL EXPLORATION.

It is well known that Professor Simon, of Heidelberg, published in 1872 an essay on the Artificial Dilatation of the Anus and the Rectum, with a view to exploration or operation. The practice of introducing the whole hand into the rectum, and carrying it as high as the aortic bifurcation, has, on Simon's authority, been applied by many surgeons, and it would seem without unpleasant consequences. Still a certain amount of caution is necessary, as it has been proved in a paper by Dr. Dandridge, published in the *Cincinnati Lancet and Observer*, May, 1876, that in several cases the result has been fatal through the rupture of intestine or peritonitis. The cases are regarded as so important that Dr. Dandridge's paper has been translated *in extenso*, and published in the *Bulletin de Thérapeutique* of Paris, June 15th, 1876.

Mr. M. Howard is thanked. The communication is not, however, sufficiently interesting for our columns.

COLLAPSED LUNGS AFTER HANGING.

To the Editor of THE LANCET.

SIR,—I reported in THE LANCET of Nov. 9th, 1867, the post-mortem examination of an interesting case of collapse of the lungs after hanging. As far as I can ascertain, it is the only instance of the kind on record, and I think its exceptional character requires further notice. I directed Dr. Taylor's attention to it at the time, who kindly replied that they (the appearances of the lungs) were peculiar, and that he had never met with a case where they were so collapsed and empty. He has recently, in the last edition of his Principles and Practice of Medical Jurisprudence, vol. ii., p. 30, alluded to one case which, I think, is that I published in your journal of the above-named date. I must refer those who take an interest in the matter to the more detailed statement previously given. But I may now briefly state that the body was examined four hours after death; the subject a man free from disease, of good constitution, and in the prime of life; weight, 12 st. 7 lb.; height, 5 ft. 9 in. There was marked flattening on the upper part of the chest on each side of the sternum. After removing the sternum and cartilages of the ribs, the lungs were not to be seen, and were found to occupy a very small space at the back part of the chest, the pericardial sac alone being seen. The colour of the lungs was of a darker hue than natural, especially at the bases; their structure was healthy, but there was loss of crepitancy, and but very little air in them. There was no displacement or fractures of any of the vertebræ. The right sterno-cleido muscle was ruptured, and the ends were about two inches apart, having retracted to that extent in its sheath. The rope after being adjusted was displaced before the drop fell, the weight of the body falling on the right side of the neck, thereby only partially constricting the windpipe. The post-mortem appearances were put down in writing by my friend Dr. Truman, now public analyst here, at the time when I made the examination, the accuracy of which we can attest. It is difficult to conceive how the lungs by any contraction of the diaphragm and intercostal muscles could be made so collapsed and empty, and to occupy so small a space in the thoracic cavity as was undoubtedly the case. It would almost lead one to imagine that some inherent force in the lungs themselves had contributed to the result; but the supposition is at variance with our present knowledge on the subject.

Yours truly,

Nottingham, June 26th, 1876. T. MASSEY, M.D.

A MEDICAL CONGRESS IN AUSTRIA.

FROM the 31st of July to August 2nd, a Congress is to be held in Vienna, exclusively limited to Austrian medical men. Delegates from different parts of the Empire have promised their co-operation, and it is expected that this Congress (the second of the series) will prove very successful. The Vienna Medical Society has appointed the following distinguished men as delegates:—Drs. Skoda, Auspitz, Gauster, and Wahrmann.

Dr. G. Hunter.—The universal practice, not only in the medical profession, but in all avocations, is for the person subpœnaed to receive and retain the fees. With regard to the second point, it is better to have a clear agreement on the matter.

SPECIAL HOSPITALS: THEIR ABUSES AND GRIEVANCES.

To the Editor of THE LANCET.

SIR,—A friend of mine, afflicted with, and unable to obtain relief from, an affection of ——, asked his wife to call at a special hospital ——, and ascertain the best practitioner to consult upon his case. The porter of the hospital gave a private card of one of the medical officers, particularly impressing on the lady, not once, but two or three times, that she was to be sure and mention his name, and at last, that no mistake might be made, endorsed his name on the back of the card. My friend followed the instructions given him, saw the specialist, paid a fee of two guineas, got a prescription, bought an instrument according to instructions received, and, having cheerfully parted with something over three pounds, came and asked me whom he had better consult, as he considered "the whole affair a plant." I may add that when waiting in the specialist's consulting-room, he was not particularly edified by the contemplation of a bottle containing a dissected preparation of ——, displayed in a conspicuous part of the room; nor was his opinion of the gentleman much raised by receiving with the instrument a paper in which his distinguished name often appeared.

So much for an abuse. Now for a grievance. I frequently have, at a special hospital to which I am attached, cases brought to me which, on inquiry, I find have been treated by general practitioners, who, no progress having been made, have advised the patient to apply for advice at the hospital. In nearly all such cases I find that fees have been paid for previous attendance, and that from their circumstances the patients are well able to pay me a guinea; accordingly I dismiss them with the information that they can consult myself or any of my colleagues at our respective consulting-rooms. They go away and are seen no more, and I cannot but consider such cases an attempt to get an opinion minus the unpleasantness of paying a fee. I hardly like to suggest that the medical attendant is in the plot; but it looks rather like it. Patients in poor circumstances and fit objects for charitable relief are, I find, generally sent to the hospital from the commencement of the disease.

Yours obediently,

July, 1876. A SPECIALIST.

KAVA-KAVA IN GONORRHŒA.

THE *New York Medical Record* (May 20th, 1876) mentions this root as being extensively used against gonorrhœa in the islands of the Pacific. It is the Piper methysticum. From sixty to ninety grains of the root, cut into small pieces, should be macerated for five minutes in a pint of water, and frequently shaken. Filter, and give half before eating and half after meals every day until recovery. Twenty minutes after the first dose there is a strong desire to pass urine; the latter is abundant, and looks like water. Ardor urinæ disappears, and the patient feels relieved. The treatment lasts from ten to twelve days. The kava acts, besides, as a bitter tonic, and is of an agreeable taste, excites the appetite, and gives rise to neither diarrhœa nor constipation.

REGISTER OF VISITS AND INDEX OF NOTES.

MESSRS. KNIGHT AND CO. have favoured us with a copy of the above, arranged by Mr. Ashby, medical officer of health for the Grantham, Newark, and Sleaford combined sanitary district. Medical officers of health and sanitary inspectors will find the Register extremely useful and convenient.

HOW DOES QUINA ACT?

To the Editor of THE LANCET.

SIR,—I am unaware of any theory explaining the action of quina beyond calling it an antiperiodic. I merely wish to suggest in the humblest way an explanation which seems to me to be a fair one. We know that the clinical expression of anyone suffering from malarial poisoning is fever *plus* a blood inclined to stagnate, and that the post-mortem pathological signboard is an enlarged spleen with universal congestion. Now, the spleen is *the* organ in which we find a large amount of extremely extensible tissue; in fact, it acts as a sort of sanguineous safety-valve, and, by "blushing unseen," often saves other organs from a temporary dangerous plethora of blood. Supposing the action of quina to be on the sympathetic nerve, would not the action of the drug be explained by its power of dilating (or perhaps better, stimulating) the capillaries, and so removing the stagnation of blood? The action of the malarial poison would certainly seem to be on the sympathetic and its branches, causing a palsy of their actions, and would be very comparable to the action and counteraction of belladonna and strychnia on the small arteries of the nervous system, the malaria acting one way, and the quina the reverse way. We can, I think, compare this action with the homely remedy of putting a burnt finger close to a hot fire to remove the pain, or to the use of a strong solution of nitrate of silver over burns, as recommended by the late Mr. Skey. They point to the same idea—viz., the contraction of the capillaries is overcome, and circulation restored. Again, in some cases of facial neuralgia a large dose of quina will stop pain and give sleep; here again the pain was probably due to pressure caused by stagnant circulation of blood. In the one case we restore the circulation balance by a drug given internally; in the others by a local agent acting in the same way. I have not the means, but I should think this might easily be tested on a frog's foot by irritating the web &c., and then seeing the effects of a strong dose of quina on the congestion raised; but such experiment would have to be, I fear, done at once, before the new interesting Vivisection Bill has become law.

Your obedient servant,

London, June 20th, 1876. W. H. T. POWER.

A PRIEST ACCOUCHEUR.

THE *Lyon Méd.* of June 25th, 1876, states that a priest of the town of Novis (department of Aveyron, France) lately acted as accoucheur. His practice in two cases was particularly unfortunate, as both the mothers and the children died under his care. He was on the eve of being tried when he himself was overtaken by death. The clergy in France are fond of meddling with medicine; but it is very rare for any member to act in an obstetrical capacity.

M.B., C.M.—We have no special knowledge of the matter. That business of the kind mentioned is transacted weekly by respectable agents to the satisfaction of principals there can be no doubt. Of course, to prevent disappointment, it is highly desirable that both buyer and seller should have a distinct understanding of the terms of the transfer.

THE UNIVERSITY OF DURHAM AND THE M.D. DEGREE.

To the Editor of THE LANCET.

SIR,—The proposed action of this University, referred to in your journal of last week, will be hailed with satisfaction by a very numerous body of men who, when too late, have realised the disadvantage of not possessing a degree in medicine. But, Sir, I think the Senate would do well to reconsider their decision of fixing the age at not under forty, otherwise the scheme will work little or no practical good. That a man of thirty or thirty-five, well up and ambitious to rise in his profession, must wait five or ten years, seems to me very unfair. Most men of forty years and upwards in general practice have either secured a position in life which renders them independent of the *kudos* of a M.D., or have got too rusty to pass, or too lethargic to read up for, a stiff professional examination, not to speak of the "good Arts examination," which will prove a greater impediment to many than the former; for I doubt very much if many in general practice, bar University men, would be found capable of construing a passage from Cicero or Demosthenes, or working a quadratic equation.

Let, then, the Senate make the standard in Arts and Medicine as stiff as they please; but fix the age as low as thirty-three (with a proviso that such candidate shall have held some legal qualification *at least ten years*), and they will confer a great practical boon on a numerous body of men, who, through no fault of their own, find themselves heavily handicapped in the battle of life. For the one above forty ambitious of a M.D., there are ten between thirty-three and forty, and why should they be compelled to wait?—for surely a man of thirty-five is as likely to reflect credit on the University as one of forty. Why should Durham withhold what Brussels offers?

I am, Sir, yours &c.,

London, July 3rd, 1876. THIRTY-FIVE.

LEPROSY IN TRINIDAD.

DR. ESPINET, in a late report of the Leper Asylums in the island, states that, while the disease is confined chiefly to the poorer classes, all races, "Italians, Poles, Englishmen, and Irishmen," were liable to become affected after a few years' residence. It is most common among the Portuguese and Hindoo emigrants. He believes the period of incubation may be prolonged beyond fourteen years. Dr. Espinet has never observed its development in children earlier than the third or fourth year. He thinks that in certain cases it is contracted accidentally.

EXPEDITIOUS AND ECONOMICAL VACCINATION.

To the Editor of THE LANCET.

SIR,—I was requested last month to undertake the duty of vaccinating all the children in the Liverpool Seamen's Orphanage, as the danger of an epidemic of variola seemed imminent, owing to the number of cases in the town. On June 13th I vaccinated 75 children, the eldest of whom was 15, and the youngest 10 years of age, using fifty fresh vaccine tubes. Of these, 30 failed. On June 28th I vaccinated 182 children, the eldest of whom was 16, and the youngest 7 years of age, using, owing to scarcity of lymph, twenty-eight tubes, diluted with an equal quantity of glycerine and water. Of these cases, only 18 failed, and the rest took admirably. I mixed the glycerine and lymph in a small evaporating dish, and vaccinated by dipping the point of a lancet into the mixture and scoring the arm. In this way I did all the cases in two hours, and I think that for expedition and result, to say nothing of economising lymph, this plan may be adopted with advantage by all surgeons to large institutions under similar circumstances.

I remain, Sir, yours truly,

HENRY Y. PITTS, L.R.C.P. Lond.,
Honorary Surgeon, Liverpool Seamen's Orphanage.

Tue Brook, July 5th, 1876.

P.S.—I believe that I saw in THE LANCET some time back an account of a similar proceeding with equally good results, but think that the plan is far from being generally known.

Chas. Thompson, M.D., U.S.A.—The paper is better suited for the *Journal of Anatomy and Physiology*. Similar cases have been observed by many English anatomists, and also by Gegenbaur, and are recorded in Krause and Telgmann's "Die Nerven-Varietaten beim Menschen," p. 28.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir J. Paget, London; Dr. Brown-Séquard; Dr. Pollock, London; Dr. Palfrey, London; Dr. Morell Mackenzie; Dr. Leared, London; Mr. Fuller; Mr. Rowlett, Paris; Dr. Wardell, Tunbridge Wells; Mr. Harriott, London; Mr. Jones, Portmadoc; Mr. Kerr, London; Dr. Dixon, Northwich; Mr. Ellis, Huntingdon; Dr. Foster, Birmingham; Mr. W. D. Watson, London; Mr. Woodcock, Bradford; Mr. Denniston, Greenock; Mr. Maclehose, Glasgow; Mr. Jordan, Birmingham; Mr. Buxton, London; Mr. Love, London; Dr. Moer, Bristol; Dr. Sturges, London; Messrs. Nestle and Co., London; Mr. Owen, Lepton; Dr. Donald, Leadhills; Mr. Redwood, Rhymney; Dr. Hunter, Linlithgow; Mr. Price, London; Mr. Garner, London; Mr. Monteith, Poplar; Dr. Philipson, Newcastle; Mr. Smith, Halifax; Mr. Mallet, London; Messrs. Cyrax and Farries, London; Mr. Alford, Hampstead; Dr. Piggott, London; Messrs. Cater and Co., Launceston; Mr. Hey, Manchester; Mr. Hill, Paris; Dr. Pitts, Tue Brook; Mr. Cramp, Southampton; Mr. Cannon, London; Messrs. Probyn and Co., London; Dr. Tipple, Greenhithe; Mr. Richardson, Bryngwy; Mr. Turnbull, Huddersfield; Mr. Dawson, Rangoon; Mr. Owen, London; Mr. Wheatley, London; Mr. O'Donohoe, Cardiff; Mr. Long, Arpington; Dr. Croncher, Hastings; Mr. Duncan, Glasgow; Mr. Maxwell, Okehampton; Mr. Ellis, Llandudno; Dr. Dixon, Northwoods; Mr. Graham, Caterham; Dr. W. H. T. Power, London; Mr. Edmondson, Leith; Mr. Henderson, Ware; Mr. Watson, Bristol; Mr. W. Hands, Hereford; Mr. Braham, Huddersfield; Mr. Rainford, Seaford; Mr. Rood, Arpington; Mr. Hewson, Welford; Dr. Evans, Cardiff; Mr. Fowke, London; Dr. Bull, Stony Stratford; Mr. Bartlett, Birmingham; Mr. Johnson, Coldstream; Dr. Horder, Cardiff; Mr. Oldfield, Edinburgh; Mr. Hewart, Newport Pagnell; Mr. Smith, Bromsgrove; Virginia; J. F., Hastings; W. X. Y.; A Sufferer; N. W. F., Montgomery; M.D.; Director-General of the Navy; Veritas; M. H.; A Specialist; M.B., C.M.; The Masters of Leamington College; Thirty-five; A Surgical Member of the Branch; The Registrar-General; Aqua Pluvialis; W. D. M.; The Registrar-General of Edinburgh; Expert; Surgeon, Oundle; A. W.; Epsilon; T.; H. G.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Griffith, Pen-y-groes; Mr. Austin, Tongue; Mr. Fairles, Montgomery; Mr. Rawlins, Kentish-town; Mr. Beck, Leamington; Mr. Smith, Clogher; Dr. Butler, Spennymoor; Mr. Felton, Stonehouse; Mr. Dearden, Douglas; Mr. Todd, Suez; Mr. Whalley, Bradford; Mr. Cameron, Salen; Mr. Matthews, Kinross; Mr. Coleman, Armley; Mr. Turner, Worcester; Mr. Sowerby, Northallerton; Mr. Heath, Ripon; Mr. M'Caskie, Anston; Mr. Hughes, Carnarvon; Mr. Glaisyer, Brighton; Dr. Mudd, Storrington; Mr. Scott, Parkhead; Mr. Osmond, Thorpe; Mr. Burgess, London; Mr. Ramsay, London; Mr. Radford, Exeter; Mr. Richardson, Ballermillnck; Mr. Sutherland, Castletown; X. Y. Z., Penzance; Beta; Poddy, Edinburgh; T. M. D.; E. D., Cobham; R. H. N., Poplar; F. A., Edinburgh; Guy's; A. B. C.; L. E., Stafford; J. H. E.; W. B., Bournemouth; A. B., Cornhill; L.R.C.P., Mumbles; Medicus, Edinburgh; Isis; H. G.

Folkestone Observer, Newcastle Chronicle, East London Observer, Western Morning News, Cork Constitution, Metropolitan, Surrey Advertiser, Southport Visitor, Hastings and St. Leonard's Observer, Record, Times of India, Manchester Guardian, Analyst, West Middlesex Advertiser, and *Sheffield Daily Telegraph* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, JULY 6TH, 1876.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
June 30	29·97	N.W.	55	60	104	72	52	...	Hazy
July 1	29·95	W.	60	65	93	72	49	0·04	Overcast
,, 2	30·00	N.W.	62	69	113	80	49	...	Overcast
,, 3	30·15	E.	59	66	106	78	62	...	Overcast
,, 4	30·08	W.	61	66	95	74	50	...	Cloudy
,, 5	29·97	W.	61	65	93	71	61	...	Cloudy
,, 6	30·04	W.	59	65	99	73	60	...	Overcast

Medical Diary for the ensuing Week.

Monday, July 10.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, July 11.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, July 12.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, July 13.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, July 14.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 15.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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